

THE
FAT OF THE LARD

AND
HOW TO LIVE ON IT

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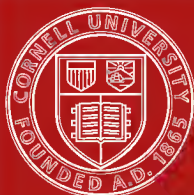
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ELLEN GOODELL SMITH, M. D.

A PRACTICAL COOK AND TEXT BOOK FOR GENERAL USE.

THE
FAT OF THE LAND

— AND —
HOW TO LIVE ON IT.

SPECIAL CHAPTERS ON NUTS AND VEGETABLE OILS, AND
HOW TO USE THEM IN COOKING; MILK; BAKERIES;
FEEDING INFANTS, AND VARIOUS OTHER SUB-
JECTS RELATING TO THE FOOD PROBLEM.

By ELLEN GOODELL SMITH, M. D.,
Pansy Park, Dwight, Mass.

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TO THE MILLIONS
OF THINKERS WHO THINK IN NEW DIRECTIONS,
AND TO OTHER MILLIONS
WHO DO NOT STOP TO THINK WHETHER
THEY SHOULD "LIVE TO EAT" OR "EAT TO LIVE"
THIS BOOK IS DEDICATED.

“Whatever hath life thou shalt not kill.”

“If it happens that thou see anything to be killed,
thy soul shall be moved with pity and compassion.”

—*Buddhist Scripture.*

Thou shalt not kill.—*Christian Scripture.*

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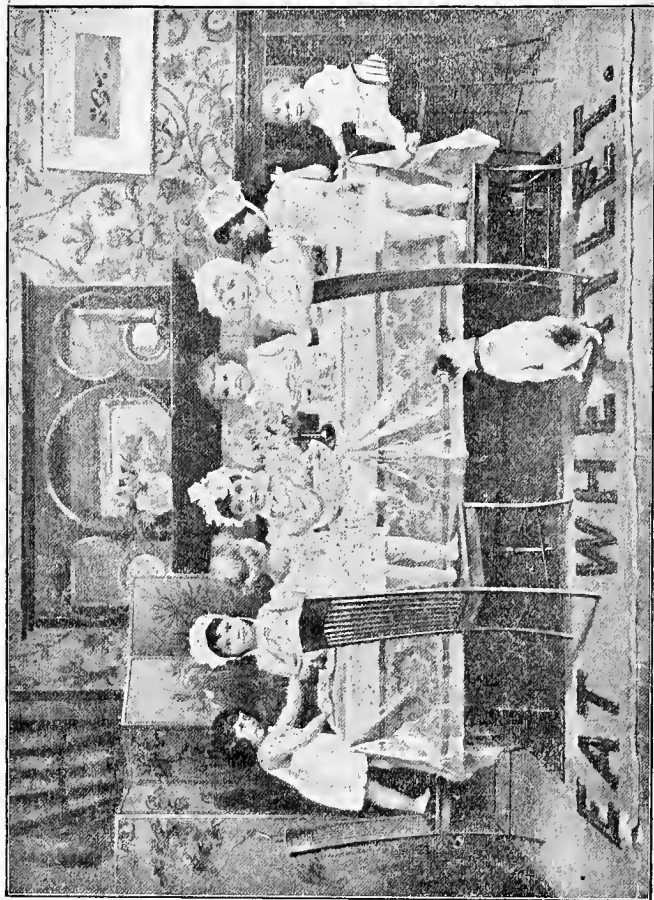
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But words are things, and a small drop of ink
Falling like dew upon a thought,
Produces that which makes thousands,
Perhaps millions think.—*Byron.*

The address of an ancient and distinguished priest of India.

“Children of the sun, listen to the dying advice of your faithful and affectionate instructor, who hastens to the bosom of the great Allah, to give an account, and to enjoy the expected rewards of his services. Your regimen ought to be simple and inartificial. Drink only the pure, simple water. It is the beverage of nature ; and not by any means, nor in any way, to be improved by art ! Eat only fruits and vegetables. Let the predaceous animals prey on carnage and blood. Stain not the divine gentleness of your natures by one act of cruelty to the creatures beneath you ! Heaven, to protect them, hath placed you at their head. Be not treacherous to the important trust you hold by murdering those you ought to preserve ; nor defile your bodies by filling them with putrefaction. There is enough of vegetables and fruits to supply your appetites, without oppressing them by carrion, or drenching them in blood.”



AN EARLY BREAKFAST.

BY PERMISSION OF THE FRANKLIN MILLS COMPANY.

PREFACE.

This book *is* because of the agitation and discussion upon the various phases of the food question. The title indicates its character to be vegetarian; this word however is a misnomer, but as none better has yet been coined, we will simply state that we are vegetarians, because we think nature designed us to subsist on the "fat of the land," and not on the flesh and blood of beasts, or any living, sentient creature. Necessity alone compelled mankind to eat flesh, that life might be sustained, and that page in the history of the race should have been gradually closed as other forms of food appeared. But changes are difficult to make, consequently a portion of the world adhered to a flesh diet. By making great improvements (?) in the animal world, that they might become a source of greater profit, many have been rendered so unlike their original selves, that their flesh and products have become dangerous and questionable as articles of food for the human family. This latter reason should be sufficient to induce any thoughtful person to abstain from flesh and seek for other and more desirable food with which the bounteous earth overflows.

Thoughtful women in public and private life have been and are searching for something less elaborate than the conventional cook book, supplemented by the modern cooking school. These latter, under skillful and conscientious teachers, are accomplishing much good in some directions, but the constant developments in cooking, often seem like an endless maze of culinary wonders, that con-

sume much valuable time and cannot in any way contribute to the health of the consumer.

Cook books are "legion," and there can be no excuse for increasing the list of those tending toward a true hygiene, as many able pens already occupy that special field. None however have taken up the broader work that is the basis of this book, which has occupied the spare moments of two years of an extremely active life in other directions. Pencil and paper have been within reach at any moment for a stray thought or idea that might serve a helpful purpose. An extensive correspondence consuming much time and labor has brought to its aid the world's best thought and kept it in touch with the van of progress and to this is due much of the best the book contains.

I have personally tested, and experimented in new directions until it seems a very simple thing to exercise one's ingenuity and create new and artistic dishes, both appetizing and healthful, from the simplest materials.

If the product of this labor seems disjointed and somewhat irregular in arrangement do not attribute it to disorderly habits, and class me with the ancient and much abused "blue stocking," but rather to a lack of time for continuous work upon any one subject.

Not to increase the list of cook books, chapters on various subjects all bearing upon the food question form the bulk of this work, and will be of far more value to the reader than elaborate cookery.

To be a health and dietetic reformer in the early days of this movement meant much sacrifice and often personal abuse. We were all pioneers then, mostly enrolled on the chronic invalid list, many of us with one foot in the grave.

Correct living lengthened out the days to years. A few of the early laborers still survive, and rejoice that the better way is no longer a hard circumscribed path—hardly respectable—but a broad, beautiful avenue, prolific to overflowing with every desirable, delicious and healthful edible, readily obtainable and easily prepared to properly nourish the entire body; thus rendering it a perfect home for the manifestation of the possibilities of the real individual.

From the other side comes a voice. "The Scientists are now investigating the food question, and accomplishing much by way of more healthful living. Is a more radical change in dietetic habits really necessary or desirable?"

With no desire to set aside the work of the scientists, we accord "honor to whom honor is due," and may success attend their gigantic efforts, that seem to be heroically directed toward healing, protecting and preparing the animal world and their products for human consumption.

Facts are stubborn things and at the risk of a lengthy preface—do not pass it by—I will call attention to some of them that you may deduce your own conclusions.

As a race, we have "been weighed in the balance and found wanting"—deficient in health, morals and longevity. Monuments of granite and marble rise unnumbered above the ashes of immatured and unripened humanity that has been hastened into another world by the errors of this, far in advance of nature's harvest time. Over against these are arrayed the victims of vice, crime, war, disease and intemperance which constitute the larger proportion of the human race. For the protection and

conservation of these unfortunates, the humane portion of the world have erected and supported monuments all over the land, and are still constructing them on a broader and more magnificent scale than ever before. These monuments are known as Hospitals, Homes, Jails, Asylums, Reformatories, and Prisons. To build and sustain these monuments filled with living victims, requires not only millions of dollars and heavy taxation, but the still costlier sacrifice of talented men and women, to officer them. In addition there are thousands of other true and useful men and women immured within those walls, who earn a competency by administering to the daily necessities of these unfortunates.

Whence comes this vast army to be fed, clothed and cared for like so many infants? What is to be the final result to the world of peopling it with abnormally suffering humanity? If we examine the question from its mental, financial and political aspect, we find that mentally we constantly expect these unfortunate guests, that financially we are making constant preparations to care for them, while these two being satisfactorily adjusted the political significance of the whole would adjust itself.

Time indeed it is to pause, consider, and turn the balance the other way. Time indeed to seek for the causes that produce such fruit, and turn our practical talents toward their removal.

We shall not find these unfortunates in the ranks of dietetic and health reformers. Neither from vegetarian homes are they launched into the world of helplessness that taxes our energies to the utmost.

Vice begins in half-starved bodies. Crimes owe their parentage to starvation of brain and stimulation of mind

and body in the wrong direction : these with unbalanced morals manifested in a multitude of ways, result in crime, war and intemperance. From a vegetarian standpoint, these unhealthful conditions of mind and body are largely propagated, nourished and developed from the never ending supply of slaughtered flesh and its stimulating—not nourishing—accompaniments. The moral and physical health of millions is thus undermined, and from such material is created generation after generation of imperfect human beings ; irresponsible for their individual composition, and for which they suffer and transgress in various ways.

The disease of wide-spread ignorance should receive a thorough diagnosis, and the healing process begin at the foundation.

This generation is preparing the soil from which will be developed the seed that produces human blossoms with immortal souls ; and it is for us to say what the fruit shall be and so determine the future harvest.

We shall then no longer speak of “Paradise Lost,” for we shall live in Paradise regained. The land that already flows “with milk and honey,” with “oil and wine” shall feed and sustain us, and true to nature’s plan, living on the “fat of the land” will bring physical and moral health that will banish from earth the various phases of inharmony and unrest.

To add my mite, and lend a helping hand in educating out of error into the truth, this book became a necessity.

INTRODUCTION.

Mother nature has gone almost out of fashion. Artificial and truly appalling fancies in the domestic world have superceded ease, freedom and naturalness. The manufactured attractions of the modern cuisine have been the ruin of millions. To-day they are becoming more burdensome than ever.

Conventional exactions and restrictions are the legitimate accompaniments of myriads of fanciful dishes. One or at most two courses at the table have been reinforced by three, five or more at a single meal, with an ever increasing service of table appointments. Laces, ribbons, chiffons, and other etc. are observed in strange company, assisting in the decoration of tables supplied with various fanciful productions of the caterer's art, which usually have a tendency toward hastening us out of this world instead of preparing us to live in it. The gustatory wants of the race have multiplied far in excess of the needs which are few and easily supplied. These modern methods have proven disastrous to mistress and maid in thousands of homes, and have caused an unlimited amount of worry and soul-degrading, health-destroying labor. A perverted taste has become so universal that we have lost the exquisite, delicate office of the palate, and the flavors of pure food are not appreciated by the masses. To cater to this perverted taste, we take the various foods of nature, spice, season, pickle and otherwise doctor them, never thinking that a momentary grati-

fication in the mouth may lead to disaster in the vital domain. When the effects become apparent in headaches of various kinds, in neuralgic, rheumatic and gouty twinges of nerves and muscles, in "biliousness," colic, and dyspepsia, we appeal to the potion, powder or dinner pill for a panacea that will route the supposed enemy, and prepare us for similar indulgence at succeeding meals. If these fail we call in the family doctor. His motto is that "what will make a well man sick, will make a sick man well," and treats our diseases with poisons, as he has done for centuries, instead of recognizing the great truth, that *patients* should be treated and taught to "go and sin no more." Curing diseases is worth millions to physicians; curing patients would prove disastrous to the profession.

When we realize that it is a sin to be physically, as well as morally or spiritually sick, we shall give more consideration to the creative power of food and drink and all other physical necessities. We shall learn and be obedient to spiritual law, and also discover that the "ounce of prevention" will be of far greater value to us than the "pound of cure."

Growth and development, waste and repair, life and death, are continually operating in the wonderful mechanism of the human body. Yet, strange to say, this intricate product of creative wisdom is subjected to neglect, abuse and ill-usage in every way, which would not be tolerated in the delicate mechanical products of the hand of man.

From the moment the inert clay receives the "breath of life" it should continue to perform its work until, through the natural processes of age and death, it ceases

to be useful as the habitation of the real individual.

Perfect health is the natural right of every child, that it may round out a century or more of physical existence. It is however an appalling fact that more than half the race perish in early life. That few perfectly healthy people can be found is a matter of the greatest significance; and that nine-tenths of medical practice is among women and children, plainly proves, not that women are weaker than men, but that men, through their daily environments, living more in the open air, and in contact with the outside world, are less liable to trivial ailments, that often result in serious complications in women whose lives are circumscribed by monotonous cares and countless details of the home life.

Sickness is expensive, and no profession so exhausting as nursing the sick: while death is surrounded by such costly and elaborate display, that one almost feels they cannot afford to indulge in the repose of the tomb.

To "take something" means possible relief, with frequent repetitions of liquid or solid poisons that will make well persons sick; that will take food from the mouths, and clothing from the backs of those who cannot afford to be sick, and rapidly deplete the purse of the well-to-do.

Intemperance in any form leads to disaster and death. Temperance in all things leads to happiness, health, and a long and useful life. We are creatures of habit, and can accustom ourselves to anything good or bad, if we only will to do so, and permit no obstacle to stand in the way.

With this thought as the basis of action while practicing the untried methods upon myself, and teaching others, I became an inmate of Dr. William T. Vail's

"Granite State Water Cure" at Hill, N. H., with which I was connected several years, subsequently graduating from Dr. R. T. Trall's College, New York City, in 1861, with a large class of men and women, which experience settled the question in my mind regarding the propriety and wisdom of the co-education of the sexes in medical and all other schools and colleges.

I have always combined practice both in and out of Sanitariums, with practical talk, and progressive public lectures, begun when women lecturers were an entire "bureau" in themselves, and a great "curiosity" besides.

In those days of health and food reform, when our theories were ridiculed, our best efforts caricatured; and we were called "lean, lank, vegetarians," living on "bran-bread and saw-dust puddings," full of insane notions; (crank and fad were then unknown in their present application), to prove my positions correct, I became an experimental demonstrator in hygienic cookery, and bread making, and do not know that any one preceded me in that line of work.

Having kept pace with the march of events in progressive medical practice, and in touch with the striving of others for the light of truth, it is a matter of rejoicing that hundreds are now interested in learning the better way, where there was but one forty years ago, and that one a "queer" individual with but a single fanatical "idea."

Having several years ago retired from active practice, I am now impelled by letters from numerous friends, and the needs of a large class of progressive people who are seeking a higher physical and spiritual life, to pick up the thread, take another step along the same line, and

send out this book as one more guide toward the better way.

That its teachings may lighten the burdens of many a mother, and save herself and loved ones from sickness ; that it may lead to the generation of children who will require no *re-generation* ; make homes happier because of better health in the household, and less exacting drafts upon the domestic purse ; and last, but not least, emancipate women from the slavery of unnecessary cooking is the sincere wish of the

AUTHOR..

CHAPTER I.

WHY WE EAT.

The human body is a machine propelled by a delicately constituted engine called the heart, that never ceases its invisible motion from birth until death. This body is composed of fifteen elements. To properly nourish and sustain this body, we must supply it with these fifteen elements as material for its growth, fuel to warm it, and furnish power for work as well as to repair the waste that continually takes place. The more perfect the working of the human machine from day to day, the more normal the activity of every organ, the more readily they cast off the worn out atoms and appropriate the new.

What to eat and how to prepare it becomes then a vital question.

Scientists tell us that these supplies need to be furnished in the proportion of one of muscle making, one of fat and six of heat producing. They also tell us that about three ounces of nitrogenous—muscle making—food is all that can be made use of by a healthy adult in twenty-four hours.

A mental note of these quantities will convince any thinker that the average person eats too much of all these kinds, and the general ignorance of proper foods, leads to a constant overburdening of the system with an excess of some or all of these and a resultant accumulation of waste matter and clogging of the machinery.

All of the fifteen elements needed have been stored by nature in a grain of wheat, and it may not be generally known that in the preparation for the market of our fine, white flour, twelve of the fifteen have been eliminated and only three remain. It is this fact that gave rise to the statement that "the Americans are starving on white flour."

A WORD TO HOUSEKEEPERS.

If you have read the foregoing you have read how if the system is overloaded—and thereby some organ becomes torpid—dead matter accumulates, and our bodies not only become sluggish and stupid, but unclean with the accumulation of dust and debris in crevices and corners of liver, heart, lungs, kidneys, while the miles of sewers in the skin with their numberless ventilating openings cannot relieve the internal pressure, until thoroughly cleansed. Doubtless most of us take pride in being good housekeepers, and would feel chagrined to have our house in disorder, and with accumulations of dust and dirt. Why then not have similar feelings concerning this personal "House Beautiful" and learn to have equal care and cleanliness in its management, and be equally chagrined, when our own carelessness has filled it with unclean refuse, with its result, which we call illness and disease. For disease is only the result of overtaxed organs; the natural consequence when the supply of food exceeds the assimilation, and leaves a surplus of waste which the system is unable to dispose of. It follows then that this surplus is waste material, ready to be thrown off, and hence unfit to be retained, and illness follows, to indicate the unclean, unwholesome condition of the "house we live in." Is this good housekeeping?

TO PARENTS.

Each generation is grown in embryo upon the food we consume. If we drink stimulants, eat tobacco, opium, spices and condiments, and unclean or diseased animals together with rich products of every sort, at all hours of the day or night, how can we hope to grow anything better than present generations. Why not become as familiar with the science of creating the future occupants of the home, as those of the stable, the sheepfold or the kennel? Are domestic and household pets of more value than children? The farmer takes intelligent, judicious care in the breeding of his stock, and the often costly quarters provided for them and the retinue of servants at their service attest the value he sets upon their environment.

No such value having been placed upon the wife, she, too often overburdened with care and ill health unconsciously prepares her children to follow in her footsteps, having neither time or inclination to investigate the causes that produce the conditions about her. With mind once aroused, however, the mother instinct comes to the fore and she eagerly desires to know how best to care for the embryo life as well as later to properly minister to the needs of the crowning joy of every home—the baby!

What to eat and how to prepare it, should be the first lesson learned, then with strong physical bodies with which to begin life, and proper care for them thereafter we may confidently hope that the “Kingdom of Heaven” will wait a hundred years for them.

CHAPTER II.

WHY A HYGIENIC DIET.

No one subject unites in a common interest the majority of the human race, or exerts a greater influence upon health and longevity than this problem of food. And as, moreover, it has equal influence on the mental, moral and social nature, it therefore underlies these and becomes the root of many of the reforms which will bear fruit in the future, for the improvement of existing conditions.

It becomes then of the utmost importance that we consider this matter in its relation to the laws of life and health. Not merely for the selfish pleasure of a long and painless life, but that the soul—the real man for whom “The House Beautiful” was created—shall be able to develop its greatest possibilities.

To render our bodies strong, healthy, beautiful as possible, seems to have been the design of nature. To insure this, the elements required for growth and repair must be daily supplied in normal combinations that they may be appropriated through the wonderful vital processes unceasingly and silently working within these ever changing bodies of ours. But instead of inquiring how and what shall be the food that will make our bodies temples of purity for the free manifestation of our higher powers, it has become second nature to ask—

not for "our daily bread"—but what will afford the greatest pleasure to our pampered palates. Always demanding some new gustatory pleasure, we do not realize that the appetite which needs to be coaxed and coddled, is a misfortune—a misfortune induced by improper methods of living and remedied only by a change of thought and custom.

A financial estimate has not yet been placed upon the needs of the human family. But the money required to supply the "wants" in the line of food at home, or the five-dollar-a-day-with-every-delicacy-skilfully-prepared-for-the-table hotel, has become an expenditure truly alarming, not only in the cost of food but in heavy expenses for items not specified in the bill of fare.

Among the most burdensome of these we count the doctor's, druggist's and nurse's fees. We, who can afford it, do not hesitate to pay royally for every "table comfort, luxury and service," which is sure to make us sooner or later a victim for the doctor, the nurse or the coroner; while the undertaker guarantees for a suitable compensation to fashionably attire us for the latest style of casket, and mother earth opens her arms to receive our bodies long ere the time that nature intended.

The celebrated English Surgeon and Author, John A. Forsyth, in writing of the health of the early inhabitants of the earth says, "the decays of nature in the expiring periods of life were the only infirmities to which men were then liable; and, though their limbs sometimes failed to perform their office, health and appetite continued with them till life was no more. * * * * In this primitive but natural state, the food of mankind is said to have continued upward of two thousand years, *during which period*

the cook and the physician were unknown." He also tells us that "it is not easy to say at what period man exchanged vegetable for animal diet; but he no sooner began to feed on the latter than seasonings of some kind became requisite, not only to render such food more pleasing and palatable, but also to help digestion and prevent putrefaction. Of these seasonings salt was probably first discovered; though some are inclined to think that savory roots and herbs were first in use; spices however came into use, and the whole art of cooking gradually progressed until it reached its present climax of perfection."(?) Still later "reason suggested the expedient of domesticating certain animals to assist them in their labors and supply them with food. Hogs, it is said, were the first animals of the domestic kind that appeared on the table, as it was held to be ungrateful to devour the beasts that assisted them in labor."

The modern cook seems to work upon the plan that the more ingredients she can get into a given article of food the more skillful she is; and the greater variety of made dishes, the more acceptable are her services. There is a proverb that "It takes a skilled workman to work without tools," and may not those be the best cooks who can prepare the most wholesome and delicious dishes with few ingredients and the least expense in time, labor, and money? That this may be successfully done, the cook should refuse inferior articles, because in the hygienic processes of preparing food, there are no means at hand to disguise the taste or remedy anything which is half spoiled in cooking.

A modern writer has said "the Lord has provided plenty of good food for us, but the devil has sent along an army of bad cooks to spoil it all."

As we must eat to exist, how best to feed our families should command the attention of every intelligent person from the vital standpoints of labor, economy and health. The question now is to ascertain the most acceptable manner for presenting advanced truths to those who are waiting for what we are able to impart. Experience and observation have taught us that however simply a few hundreds or thousands may live, it is quite impossible to speedily convert the multitude. Through the attractions of the table, from the saloon to the church, we reach the world; and it is lamentable that an appeal to the purse through the pleasures of the table, has always proven a positive success financially, however disastrous the result may have been to individuals. This being true, we, who advocate a healthful simplicity for ourselves, would lessen influence and retard success by insisting upon others adopting at once just what we deem best. But however small the number adopting the better way, they will find great improvement in their physical condition and as they grow away from artificial and perverted appetites, and begin to enjoy the really distinctive flavors of food more naturally prepared, they will employ a far less variety and quantity of all seasonings which necessarily result in a sameness of flavors. To those who control this matter of cooking, it is suggested that you do not curtail your usual diet too much at once. Were you with little comment to quietly introduce upon your tables some of the new and tempting bread, fruits, nuts, cereals and other things with less seasonings, you would soon learn that the appetite naturally increases while approaching a normal standard, and requires no catering to or coaxing.

Women should be competent to direct, purchase, and

prepare the food of the household that they may no longer be dependent upon inefficient assistants. When women begin to investigate and experiment, they will discover that the immediate, or even gradual disuse of animal food, with its various seasonings and greasy accompaniments, will also diminish the morning languor, stiffness, coated tongue, offensive breath, ill-temper, peevishness, while "all-out-of-sorts" will vanish like the dew before the rays of the sun. There exists such a diversity of taste, no definite rules can be laid down. But having spread nature's varied and delicious cuisine before the mental vision, we can select what seems best adapted to our needs.

Fruit and bread, is an ideal and perfect diet; the variety sufficient to sustain health and life to a good old age, and with nothing else a royal feast may be provided daily.

"Fruit and Bread, a Scientific Diet" by Gustav Schlicheysen should be read by all who are interested in the better development of the race. In that he says, "the ability to kill and devour is of a lower order than the ability to till the soil" and argues that as man progresses toward a higher plane, he inevitably advances toward vegetarianism.

A wise and judicious promulgator of advanced truths, does not ask any one to accept his views, and mode of life because he believes them to be correct; but simply invites people to exercise reason and good sense upon these matters and they will discover the truth.

Many hygienists eat more or less of animal food, and one class of vegetarians eat fish, and animal products are largely used by many vegetarians. However, each class if true to their principles, recognizes the fact that **the**

body should be the servant of the mind and that it is our duty to so live in every way, that through the body may be manifested all the attributes of the higher life. But the majority have been reckless and prodigal of life in their ceaseless rush for the "good things," and have inadvertently scattered the contents of "Pandora's box" all over the world, until as a modern writer truthfully says, "high feeding, deep drinking, hard working, sleepless nights, debaucheries, dissipation, artificial life, unnatural conditions, mingled with promises of amendment, protestations of reform, prayers filled with remorse, stings of conscience, bodily suffering, mental despondency, heart-ache, life-agony and early death, are the grand array of arrangements through which our people pass." To ascertain when these conditions first had their birth we have only to glance backward, and we find that the cook and physician doubtless appeared at nearly the same time upon the arena of human life; and that these professionals have seemed to be in continuous partnership. As soon as mankind departed from a natural diet, they began to suffer in various ways and to seek relief for the consequences of their physical sins, always then applying it *externally*. They did not stop to enquire what they had done to produce such change in their bodies, but sought a remedy so they might still be able to continue the pleasures of the table, and doubtless the cooks began to try experiments to gratify the craving for new things.

The enlightenment of education and christian civilization have failed to save us from *ourselves* and free us from the consequences of still existing ignorance. The combined efforts (?) of more than a hundred thousand doctors have failed to make us a healthy, long-lived race ;

and there seems no other way but for those who will, to strike out for themselves, enquire the way, and direct conscience aright. In obedience to the higher law, they will develop their own individuality and be prepared to create new generations who will be in their prime at eighty, ninety, and a hundred years !

Natural death results from a gradual consolidation of the structures of the body. In infancy the proportion of the fluids to the solids is much greater than in adult life. This relation is constantly changing. The elasticity of youth as the structures harden is succeeded by the firmness and stiffness of age. Since our bodies are formed from the materials taken into the stomach as food and drink, does it not follow that the character of food exerts an influence beyond aught else in determining the period when natural death shall take place. The exciting, stimulating food and drink we daily use—served hot—the heating, pungent condiments, all have a tendency to dry and harden the tissues of the body, while food devoid of these, renders the tissues elastic, and the entire body active and supple to a surprising degree even in advanced life.

We have been “living to eat ;” shall we not in the future “eat to live ?”

This question, and the one of substitutes, naturally assumes formidable proportions, as the cook considers her special domain is to be no longer the receiving tomb of every thing which moves ; and that animals, or some of their products, even the internal organs, with their coverings, and every available atom, of once living creatures, from the tips of their ears to the ends of their toes, have formerly entered as toothsome dainties, into the composition of nearly all culinary preparations.

Be not disheartened ! With fruits, nuts, grains, vegetables, so abundantly stored with nutriment, so prolific in variety, why need we consume dead flesh, in which lurks poison at best, and disease difficult of detection by the average consumer. In natural foods we can see the imperfect and decayed, and reject them, without the aid and expense of numerous "inspectors."

A great wail may go up from the butcher, the baker, the grocer, that "we are spoiling their business." But when we have lessened the demand for meats, white bread and condiments ; we shall have created a demand for larger supplies of fruits, nuts, grains, vegetables, and wholesome preparations of the same ; feeling sure that, with increased health, these will more than compensate for the losses sustained through the diminished sale of harmful products. When our intelligence reaches the point where we refuse to purchase adulterated food, we shall be supplied with pure articles. When our necessities require the productions of the earth for the million, they will be produced in such quantity, and sold at such rates that the very poorest among us, even the little half-starved waifs who are often seen picking up garbage from the street and consuming it, shall be able to purchase all they need from clean, attractive rooms. And here the great problem of how to feed the poor comes into view, and can best be solved by those who give special attention to the hygienic, vegetarian dietary.

When the humane world grasps this problem, and carries it to enactment we shall witness the salvation of the body, and through this, the soul, of weak, suffering, degraded humanity, which now, with its wan and weary face, its pinched, starving, and almost naked forms meets

us at nearly every corner in our large cities, to say nothing of the dependent ones nearer home, even at our doors, who might be independent, comfortably fed, housed and clothed, if this food problem were properly understood and practiced.

A better quality of food carefully and healthfully prepared would be the stepping stone to a more cleanly, orderly life, which would rise from its present filth, poverty and degradation, and be educated for beneficent activities, thus effectually banishing vice and crime with all its attendant inharmonious conditions.

CHAPTER III.

THE FAT OF THE LAND.

What constitutes the real "fat of the land?" Not the fat of beasts, and of every available creature that moves upon the earth, soars through the air, or swims in the sea, but that which Mother Earth bounteously yields to her children in every land and clime. Fat that they may gather and appropriate at first hand, instead of taking an inferior, second-hand article by way of animal flesh as millions of them have done, first from necessity, then from habit and custom, until it has become second nature to slay and eat.

Many humanitarians have ceased to eat animal food; and there are thousands who make very little use of it, while other thousands are "almost persuaded" to join the vast army of vegetarians. Many of them regard the enormous expenditure of time, research and money spent in attempts to check, cure and prevent diseases in the animal world, as one of the many peculiar inconsistencies and short-sighted economies of the present day. If animal food were an absolute necessity to keep us from starvation, there would be reason for such labor. But when we consider that this relic of barbaric ages rests upon a cultivated appetite does it not become the duty of those who profess to lead the world aright to set a

good example in this direction? We deplore the deeds of the blood-thirsty cannibal, especially when he dines upon our favorite missionary, whom he first tortures, and does not hesitate to put to death with his own hands. With a sense of superior power we return from trapping, shooting and fishing excursions, exhibit with pride the trophies of our skill, unmindful of the fact that our success has caused the breath of life to suddenly cease, in the beautiful creatures, that an hour before were the charm and glory of their native homes. The gentle, domestic animals we have reared and tenderly cared for are betrayed, and compelled to meet an untimely death to gratify the same unwholesome and illogical appetite. If we each were required to kill and prepare for the table all the creatures we eat, the present century would witness the end of animal slaughter. We should be approaching the golden age, to which Pope refers in these lines :

“No murder clothed him and no murder fed.
In the same temple—the resounding wood,
All vocal beings hymned their equal God ;
By shrine with gore unstained, with gold undre’s’t
Unbribed, unbloody stood the blameless priest ;
Heaven’s attribute was universal care,
And man’s prerogative to rule, but spare.”

And then follow these prophetic words :

“Ah ! how unlike the man of times to come !
Of half that live, the butcher and the tomb ;
Who, foe to Nature, hears the general groan,
Murders their species and betrays his own.
*But just disease to luxury succeeds,
And every death its own avenger breeds ;
The fury-passions from that blood began,
And turned on man a fiercer savage-man.”*

Then why encourage men to brutalize themselves ; to wield the implements of death year after year, and live amid scenes of blood that we may enjoy feasting on the dead ? Are we too blind to discern that for every creature slain there may be born a criminal into this world ?

Surely we who demand such sacrifice of life even in the lowest form for our own gratification are responsible for its results ; results that lead to brutality, cruelty, sickness, crime, and premature death. When we thoroughly examine this subject there is no argument for its continued use that cannot be logically refuted. Animals have involuntarily become machines for elaborating their food, "the fat of the land" into flesh which is supposed to be necessary for the proper sustenance of the human race.

It having been scientifically proven, that man is not in any sense naturally carnivorous, not having any portion of his anatomy adapted to tearing and devouring flesh, including bones and skin, after the fashion of his carnivorous brethren, it becomes more in harmony with the aspirations of a humane and civilized people to discard the use of animal food. Nature has lavishly provided the animal world from the tiniest insect to the most gigantic beast, with food adapted to its needs.

The carnivora that crush, tear and devour their victims are not creatures of endurance and longevity, neither are they inclined to peace and gentleness ; the food upon which they subsist makes them what they are, bloodthirsty, and treacherous. When in a state of captivity, deprived of exercise, compelled to take their food denuded of its skin, they become debilitated, diseased and die prematurely. Animals in their natural state are content.

to eat and live, preserving themselves in health and prolonging their lives to the utmost natural limit. If accident or illness occurs, grasses, plants, air, water, sunshine are their instinctive remedies.

The camel, the elephant, feeding entirely on vegetable productions—the fat of the land—are long-lived, giants in strength, marvels of patience and endurance, models of intelligence, obedience and affection. The patient ox, the noble horse, the docile elephant, strong and obedient, if they were flesh eaters, could not be educated for domestic use.

According to the most intelligent scientific research, fruits and nuts were the original food of man, green herbs, grasses and roots taking their place later in his dietary. Herbs have developed into succulent foods; grasses into grains; the crudest roots into toothsome vegetables; fruits into exquisite flavors, tempting lusciousness and beauty, while nuts have grown spontaneously, with little or no culture, yielding their abundant yearly harvest in many species beyond the century mark.

In tropical climes where food is produced in luxuriant abundance, little or no cooking is done, except in the simplest manner. To pluck and eat, is the only immediate effort required to procure daily bread.

If it should be claimed that a meat diet was essential to the stimulation of the intellectual faculties, the answer might well be that Pythagoras, Zeno, Diogenes, Plato, Plutarch, and a grand array of historians, poets and philosophers of ancient days and world-wide celebrity, lived without meat upon food which may truly be called “the fat of the land.” Clement of Alexandria says of Saint Matthew, that “he abstained from the eating of flesh,

and that his diet was fruits, roots, and herbs." Minutius Felix, who about the year 210 A. D. wrote a dialogue in defense of the Christian religion, quotes Octavius, the principal speaker, as saying, "We Christians dread the thoughts of murder, and cannot bear to look upon a carcass; and we so abhor human blood that we abstain from that of beasts." And in regard to physical endurance, it is a fact that the peasantry in nearly all foreign countries subsist entirely or nearly so upon the productions of the earth.

It is capable of proof that vegetarians in any profession or occupation will endure more labor without weariness than the flesh eater. Neither are they sick or ailing every now and then. They can also endure thirst and hunger better and the loss of a meal creates no disturbing condition. And why? Because they are not working upon unnatural stimulants that use up the vital force.

It has also been demonstrated that athletes, gymnasts, runners, walkers, and cyclists who live and are trained on a vegetable diet, invariably—other things being equal—win the race or game, and at its close are not in the exhausted condition of their flesh-eating companions.

In the most heroic days of the Grecian and Roman armies, the food of the soldiers was the products of the soil. The Grecian athletes, who made the glory of the Olympian games, were trained on vegetable food, and when flesh eating began to be common among the people it was found to render their pugilists and gladiators more ferocious, and its results on athletes were disastrous.

These were the days when the Grecian outlines were the standard of physical beauty both in face and figure—when the perfect development of bone and muscle led to

such contours as are immortalized in the statues of Diana and Apollo. These sculptured forms still grace the studios of artists and the modern world has as yet found no superior standard. That their food had much formative influence upon face and figure will hardly be denied, while their culture, graces of manner and deep-reaching philosophy cannot be questioned and holds its place even in the arrogant civilization of the present day.

On the other hand, the ferocious development of these Grecian gladiators, directly traceable to a meat diet, has its lesson too. Though fain to draw a veil over the pugilistic tendencies of the nineteenth century, the fact cannot be ignored and the suggestion is natural that much is due to habit in the use of and nourishment upon animal food. Then follows the deduction. If it is desired that children shall become quarrelsome, brutal and ferocious, feed them on flesh. If it is desired to create or perpetuate the war and murder spirit, continue to feed your households on flesh, which in the days of the highest Grecian development, reduced them to ferocity or stupidity as we learn from history. And if history repeats itself, there must be sometime when it is well to call a halt.

It is often said that the Japanese as a race are possessed of the finest manners, and give greatest evidence of what we term "good breeding;" and if any are therefore disposed to accuse them of effeminacy, their recent war with China, from the same standpoint of judgment, must dispel the charge. Yet the Japanese are largely averse to meat eating.

Of the Hindoos it is said that "only the lowest classes use a mixed diet, and among these are found the most miserable, ill-formed, undeveloped portion of the native

inhabitants of India. Among the higher and more intelligent, temperate and virtuous classes which subsist on wholesome vegetable food, tall, symmetrical men, with vigorous, active bodies are by no means uncommon, and for natural ease, grace and urbanity this class of Asiatics are exceeded by no people in the world."

The educated Bramin lives very simply, often upon one meal a day.

Dr. Alice B. Stockham in her address before the World's Fair Congress on the Food of the Orient says:

"The men from Punjab and Rajputan, northern provinces of India, are noted the world over for a fine physique, for strength and endurance. * * Now we want to know how it is these millions of people, who feed mainly upon rice and still have strength and endurance, are not only the peers of meat-feeding nations, but can do even greater things than they. * * Hindoos feel that to be a slave to bodily wants, to physical necessities, is not only deplorable but despicable. * * You can not imagine what barbarians we Westerners are considered, we who are devoted to flesh pots and beer mugs. * * There is a mighty lesson that the English could and should learn of the Hindoo, but do they, and would we Americans, were we in India?"

The noble and learned men from the far East who visited our shores during the World's Fair, expressed in no uncertain terms, their loathing abhorrence of the flesh eating practices of Christian civilization.

Those who saw them and heard them speak, would in these days of theosophical teachings, consider it perilous to assume that the Oriental intelligence was in any way behind that of our flesh-fed race.

Sir Edwin Arnold, the distinguished author and traveller, says "The strongest men I ever saw in the world

were soldiers of an Indian regiment, Mahratta Brahuraus of the Third Bombay Cavalry, and all of them had all their lives subsisted only on pulse and cakes."

From the time of Pythagoras who raised up a society of vegetarians 550 years before Christ, all through the centuries, the vegetarian cause has progressed among the most intelligent people. Men and women of honorable name, who have occupied exalted positions in history, have been adherents to and defenders of the cause.

The mother country is far in advance of us in practical work, and public teaching on this line. Organizations have been formed for feeding the poor, and also school children, on the fat of the land. The art of vegetarian cookery, and progressive bread making is taught, and vegetarian cooks are in demand. In cities and towns are scores of vegetarian restaurants, practical working organizations, and a plentiful supply of literature scattered broadcast. In this country although there are said to be twenty thousand or more practical vegetarians, there are few organizations, and a vegetarian restaurant would be difficult to find.

Never has there been a period in the history of the race when the earth has contributed so bountifully of her edible products as during the present century, especially in its closing years ; never so little excuse for the slaughter of millions of innocent creatures.

The brain and hand of man has evolved luxuries from crudeness in every phase of vegetable life. Thus far has he "subdued the land" but not to its fullest extent. With greater perfection, and more rapid increase of nature's products the demand for them has so grown, they are almost within the reach of all, as they have constantly become less costly.

On the other hand animal food and products are becoming more expensive every year to producer and consumer. First by the extent of land required to support them, the more exacting care in every direction, the vast increase of labor connected with dairy productions; and last, the continual conflict with a multitude of diseases that can do naught else but render flesh unfit for human consumption. And yet millions of dollars are spent annually to prevent us from consuming poison dead flesh and to cure(?) or stamp out effectually, diseases that through the milk supply alone are a menace to human lives. It is a question for common sense people to decide, if chickens, geese, turkeys, ducks, pigs, sheep and cattle that are afflicted with cholera, dyspepsia, tuberculosis, or any other of a multitude of diseases; can ever be cured and their flesh made a pure and healthful article for human food. According to the light given in the weekly agricultural papers, we find frequent repetitions of the same ailments even after a supposed cure has been effected. The crowding, suffering, and disease-producing transportation by land and sea, the stock yards, where millions of our innocent, faithful but defenseless friends are helplessly driven and slain for the gratification of the most enlightened nations upon earth are filled with unspeakable horrors. No one of us desires even a "bird's-eye" view of these scenes, and we are careful that our children shall never become familiar with them. They only see the murdered bodies as they hang in the shops, and disfigure the streets, or appear upon our tables cooked and garnished for living receptacles.

Fruits, nuts, grains, vegetables, the true "fat of the land" should be our sustenance. These varied products,

springing from the bosom of Mother Earth, and electrified with nature's invigorating elements, furnish us with a ready, unalloyed banquet innocent of the elements of cruelty, and the environments attending untimely death. Comparison, there can be none ; the contrast in any form we choose to observe it, of labor, economy, care, or expense, defies contradiction.

In our food supply is also our *materia medica*, in suitable combinations, with water, air, and sunshine. Earth and all its blessings are for us to appropriate, and the same substances that will keep us in health will also restore us if ill, this latter condition being entirely unnatural and sinful.

"Self-preservation is the first law of nature." Self-destruction has been, and is the rule. An improved version would read **health preservation** is, or should be, the first law of nature. If not, it is time to issue a new edict, and become *our own health preservers, and cease to be our health destroyers.*

What we eat and drink either defiles or purifies. If we build with clean, sound material, we shall be pure, firm and substantial from core to surface. If we build upon gross and unclean material, we may expect grossness, disease, and early decay.

Let us then begin to live upon the real "fat of the land ;" if not for ourselves, for the rising generation who will surely follow in our lead, whether it be toward purity, peace, temperance ; or impurity, war, and self-indulgence. A thoughtful investigation of the food question cannot fail to result in a conviction that the preparation of animal food, and everything connected with it, is the real "drudgery" of the kitchen, more laborious, untidy, and

perplexing than all else. There are thousands of sensible, educated women who will admit even with a brief examination, that more than half the labor in the cook room is superfluous and therefore unnecessary.

Shall we not then bring to bear upon this subject the refinements and humanities of civilization, that will close the door upon every dead creature, and open it wide to admit nature's living guests, gathered from shrub, vine and tree: drawn from the earth, and garnered from waving grains, each and all bearing the living germs that will impart to our "temples of God, which are pure and holy," health, peace and prosperity.

Through woman must come this most vital change in the customs and habits of life. If she be the "homemaker," let her be also the home and *health-preserver*. If she be the queen of the fireside, let her wield as a sceptre the magic wand that will purify and glorify the home. She will then be no longer a slave, pleading for her "rights;" no longer under bondage to pills, potions and patent nostrums, and the visits of the family physician will be few and far between. Not only would be seen revolution and revelation healthward, but improvements in our social, moral and business life. Revolution in the inebriate and criminal calendar that would be mighty revelations to that large portion of humanity who are striving to "make the world better."

THE HUMANE SIDE.

After what has been said of the physical effects of meat-eating there is room for a few words on another phase of the question. Man would seem to be the natural protector of the beautiful lower creations, not the unnecessary slayer. The arts and sciences are rapidly devel-

oping substitutes for every portion of the animal, used for the commercial benefit of man. The capture of animals teaches injustice ; enslaving them inculcates disregard of inherent rights, and the feeding and caring for them, the giving and receiving the natural affection developed by this care-taking association, but emphasizes the duplicity of their later betrayal into the hands of the slayer and can mean nothing less than moral deterioration, spiritual obtuseness and an unconscious growing into habits of deception and unfaith.

From the smallest insect to the most gigantic beast, from the tiniest bird to the noble eagle, each and all of these so-called lower organizations are endowed with what we are pleased to term instinct as something below our reason. That it often surpasses the intelligence of man, none who have observed the habits of this lower world will deny.

To quote again from Sir Edwin Arnold in a recent article in the *Youth's Companion*, on the morality of animals, he writes :

“ That the possession of gifts so clearly akin to human feelings, duties and virtues ought to render animals dearer and more sacred to us all than they are. I doubt whether we have the right, knowing all we know, to murder by wholesale the stately elephants of Africa, killing for billiard-balls and paper-knives what heaven designed to be the carrier-beast of the dark Continent : to extirpate from another continent the noble American bison ; to slaughter tame pheasants for sport ; to inflict upon oxen the ghastly tortures of the Atlantic passage ; and generally to treat these living, sentient things as if they were automatic property, without rights or relationship to ourselves.”

Words from such a source are entitled to a respectful hearing, earnest consideration, and wide discussion. To quote again from the same author :

“ All Christian peoples stand for the most part, a sadly long way behind those of the East in their conduct to animals. Good Buddhists never intentionally take away life at all. The modern Hindus of any good cast, borrowing from Buddah, his noble regard for the right of everything to live, never touch meat as food, seldom even fish. The Mohammedans, on the other hand, are great flesh-eaters although they will not touch pork : yet by a single decree of their prophet the whole of Islam acts a thousand times more nobly and solemnly to animals than Christendom. * * * For my part I believe the time is come when the legislatures of civilized nations should take new note of the animal world. We ought not to be contented with the efforts of private societies to do them justice and to protect them. We ought not to regard them simply from the point of view of our own convenience, luxury or amusement. The mystery of their existence is profound and solemn ; the long silence of their patience may cover solemn and terrible accusations, which they will some day make against us, before the Judgment Seat of Universal Life.”

These are some of the arguments from the lower side, while those adduced for physical welfare and spiritual growth would seem to represent the higher side. That one or other of these may influence the public is the desire of vegetarians.

CHAPTER IV.

COOKING UTENSILS.

All cooking utensils should be kept perfectly clean, and in closed cupboards or drawers, instead of under the sink, or hanging in the kitchen exposed to dust and steam.

Porcelain lined, granitized, German and steel enamel ware have nearly supplanted the heavy iron pots and kettles of our ancestors, and also the tin ware of the present day.

Aluminum will doubtless supersede all else, and is already quite extensively manufactured. It is very light in weight, beautiful in appearance, nearly indestructible and although rather expensive at present, it cannot fail to commend itself to those who would save time and labor.

Our country homes will ere long be lighted and warmed with electricity, which will then become the household fuel for cooking. As these two labor-saving and refined necessities become universal, we may expect more systematic routine in every home, more rational methods of preparing food and a notable reduction in all branches of household labor.

The kitchen is the laboratory of the home and should be furnished with as perfect an outfit as possible of really needful articles. Many so-called labor-savers prove to be labor-makers. Indeed the inventory of utensils required to furnish a modern kitchen is sufficient to

almost paralyze the heart and hands of the strongest professional domestic, and quite bewilder the prospective young housewife as she reads over the lists now and then found in some article from the pen of an expert cook. Aside from the expense, it would require a good-sized room to hold them, and a first-class memory to retain their names and keep them in place.

Cooking has truly become an "art"—a "science"—the art of spending time and money—the science of wasting talent and making invalids. When we consider the needs of the human family, food will be more plainly prepared and better relished, and cooking utensils less in number. To render kitchen labor less laborious, a few of the really useful modern utensils, that have been thoroughly tested will be mentioned.

Bread mixer and kneader. This invaluable utensil may be fastened to a table, or the pantry shelf when in use and you are sure to have clean, superior bread without the contact of hands. Those who use yeast will find that it saves both time and labor. It cuts and beats up the dough, stretching and rolling it into that elastic condition necessary to produce light, fine grained bread. For kneading unleavened bread, rolls, biscuit, crackers and wafers, it gives better results than any hand kneading, and moreover the dough is kept cool, no hands touching it until ready to turn on the board and be at once shaped into biscuit and rolls that seem to begin to rise before they reach the oven.

Simple in construction, easy to wash and a pleasure to use, it is one of the most useful kitchen inventions.

The steam cooker. Next to bread stands the economical and healthful importance of properly cooked vegeta-

bles and cereals, indeed everything that can be boiled or stewed is far better cooked by steam, and many things we bake would be much nicer steamed. A steam cooker, once used, would be appreciated, and soon save its cost in labor and fuel. No steam nor strong odors in the kitchen and no burned food. It will cook an entire dinner including the dessert at the same time, while the flavor of each article is strictly retained as none of the salts and juices are lost, thus requiring little or no seasoning. The convenience of it in summer is unsurpassed, as it may be used over gas, gasoline, kerosene—and electricity—with equal success. It may also be utilized to can fruits, a method strongly recommended. As there are several steam cookers on the market, it would be invidious to mention any one, but the principle is heartily endorsed. There are also various small steam kettles that serve useful purposes.

A double boiler of porcelain is a household necessity, as it is impossible to burn anything cooked in it.

Gem irons. Two gem pans are indispensable in a large family, as it is often convenient to bake two kinds of gems at the same time.

The best pans are made of cast iron about three inches in length, one and a half inches wide, with oval bottoms, and twelve cups to a pan. If wiped out with a dry cloth after using, and scoured occasionally they will require little or no oiling. Bread pans should be oiled as little as possible, using a small brush kept clean for that purpose.

A grate for baking rolls, biscuit and crackers is far superior to tin plates or bread pans; as the heated air should reach all parts of the rolls as evenly as possible to

obtain the best results. Any tinman will make them to order to fit the middle of the oven resting on the grate slides. Remove the ordinary grate while baking. These grates or sheets should be made of Russia iron, with round perforations one-half inch apart each way; a little roughness on the under side will do no harm. Will probably cost fifty cents. If two or three inches from the bottom of the oven will give more satisfactory heat, rest the grate on small pieces of brick or iron placed in the corners of the oven.

Small tin forms for cutting rolls and biscuit will economize both time and labor. They may be made singly, or two or three attached together as it will be easier to cut three rolls or crackers at once than one. Made an inch and a half or two inches deep they will require no handles. Unleavened biscuit require to be slightly smaller than others and the following sizes are given for these: *Diamond shape*, two inches on each side; *Round* two inches in diameter for biscuit or crackers. A *round* cutter three inches in diameter with one inch and a half cut from the centre will give a ring and also a biscuit at the same time. For cutting *rolls*, an *oblong*, three inches in length, one inch wide, slightly rounded at the end, is in the best proportion, and the rounded ends make them easier to wash. Dip cutters in cold water to prevent sticking; for hot water rolls, dip in cold water, then in flour.

Pans for loaves of bread should be about three and one-half inches wide, three inches deep and seven inches in length. There are pans on the market claiming to make "crust" a specialty, but the author has not yet tried them with unleavened bread; doubtless they would

do the work if the quantity of dough in each pan was carefully graded.

Wire sieves or strainers of varying size and mesh are useful for sauces, soups and purées.

Measuring cups of glass or tin are obtainable, and to be exact, their use is necessary, as ordinary cups vary in size.

Frying basket. For such as still adhere to fried food, this is imperative in order to fry in the least harmful way.

Apple corers will reduce work and a ten cent potato slicer that will also remove the eyes from potatoes, will hull strawberries and take out the "eyes" of pine-apples.

Strawberry hullers are now obtainable and a practical housekeeper asserts that they are particularly helpful in removing the eyes of pine apples, being small and strong, easily handled and as easily cleansed.

Chopping knife. The latest and apparently the best, because most easily cleaned, has a curved blade describing a half circle. At one stroke, it strikes the whole length of the blade, hence accomplishing the work quickly.

Brushes. A brush is the best for oiling bread and gem pans. Another may be needed to whisk off the flour which sometimes adheres to biscuit and rolls. Two or three of the small, five cent, scrubbing brushes are essential for washing potatoes and other vegetables. There are also brushes made of twigs especially for sweeping out the sink, and experience may suggest others.

A Lemon squeezer, of course : and there are many to choose from. Those which stand over a tumbler being convenient, but possibly those which strongly press through porcelain are more thorough in their work and would greatly relieve the hands, if many lemons were to be used at one time.

The potato ricer not only prepares the potato rapidly and thoroughly, but may also be utilized in separating the cellulose or fibrous portions of vegetables, when necessary to prepare them for debilitated stomachs, by removing this objectionable substance.

Pine apples, oranges and other fresh fruits and cooked apples may be treated in the same manner, thus supplying invalids with a greater variety in their food.

The Mudge Fruit and Vegetable Cannery is the embodiment of the idea elsewhere advanced of canning by steam, but is so arranged that it is supposed to force the steam within the jar. It is compact and clean, and for what it can do is not expensive as it is said to cook vegetables as well as can fruit.

A Fruit Press will become imperative as the value of fruit juices becomes more widely recognized. They are more cleanly and speedy than the jelly bag process of removing seeds and skins from fruits.

A Raisin Seeder saves time and patience, but there is great choice in the machines. One in use by the author will seed a pound of raisins in five minutes and this fact makes it possible for every family to use more largely this very nutritious food.

The Domestic Mill is a necessity where one desires to grind their own wheat, and so have it fresh all the time. There is no more useful article, nor one adapted to a greater variety of uses than a domestic mill. It will not only grind wheat in various grades, but corn, rye, barley, either dry or parched, rice, beans, peas and lentils, thus furnishing the means of supplying in the home a great variety of "health foods." It will also grind dry bread crumbs, and make "granula" from bread thor-

oughly browned in the oven. Nuts so largely used by "chopping", may be perfectly ground to flour or paste in the mill. This renders them easily digested and enables those without teeth to eat them.

Having used the mill manufactured by Mr. Frank, I have no hesitation in saying that it will perfectly meet the needs of those who desire pure food supplies of their own manufacture.

As there can be no shadow without a substance, so there can be no fraudulent imitation without a genuine article. Everything mentioned in this book has been practically tested in my kitchen, as well as several inferior or worthless articles which are set aside.

The Aladdin Oven may not perhaps be classed as a necessary kitchen utensil, inasmuch as our predecessors have done without it, but that it is a great labor and time saver, that it makes a coal fire unnecessary and will cook several different things at one time, and requires no attention for hours, are facts with which it is desired to make our readers acquainted.

EXPENSE.

"Time is money" to men, and it should be to every housekeeper, whether she does her own work or has assistants. Some really useful and labor saving articles seem expensive, and many women say they cannot afford them. Neither can they afford to spend three hours doing a certain piece of work, when by a simple machine it may be done in one hour or less.

CHAPTER V.

MILK, CREAM, BUTTER, ETC.

Milk, cream, butter, salt and sugar are admissible in hygienic and vegetarian dietary, but in most of the recipes here given are not included. The reasons why they are not, are given in some of the various chapters—but it may be well to say here as well as elsewhere that in all cases salt can be added if desired, or milk substituted for water. Recipes without these ingredients are not plentiful, while the culinary world swarms with those that contain them, and any cook will, from the store-house of experience, make these additions if demanded for their own taste; but few will venture on the experiment of leaving them out without a distinct formula evolved from someone's knowledge of results.

We are not sufficiently aggressive to assert that our way is superior to every other hygienic method. Were there not diverse opinions the world would stagnate for lack of "cranks" who seem quite necessary to grind out and set adrift a vigorous new thought now and then. Some believe in fruit alone; others call fruit and bread an ideal diet. Still others discard the cereals and insist that fruit and nuts are "natural food." Another class would add to these, vegetables that ripen above the earth, thus increasing the variety of their bill of fare, while retaining its purity. The last and by far the larger class accept

all these and from beneath the soil bring forth also a less refined order of edibles with which to increase the variety and satisfy the mental demand for additions and changes that seem essential to their necessities. To all of these we are indebted for much of hygienic truth and many helpful suggestions, but we ask each to welcome any newer thoughts that the future may present. Few of us can safely assert that we have found the ultimate and demand that the world conform to our finished standard. When this is done by any sect or individual, progress ceases with them, but the wheels roll on, and the constantly upturning facts hold little in common with left behind theories.

The farther we are removed from an Edenic diet the more we incline to add substances that are foreign to the natural productions of the earth, and have drifted farther from the fat of the land. By thus creating a new appetite for variety we have created a demand for various substances which as said above are admissible, but which used to excess as they almost invariably are, have proven positively injurious and the cause of much disease in the human family. It will not be denied that to both milk and butter have been directly traced several forms of disease which if cows were in their natural, healthy state, might have been avoided, and which non-use of these products would most certainly eliminate.

The man now-a-days who is afraid of trichinae is not pronounced an idiot, and soon the woman who is afraid of feeding tuberculosis to her baby may receive similar charity. Meantime those whose surroundings make it possible for them to venture and whose training and desires lead them to the use of these articles, may rest

assured that the author feels no disposition to condemn, and recognizes in them a fellow-searcher after the best in food. It is the province of this book to assert that one can live, and live well, even after excluding from their diet all animal products, but also to recommend that this change be made gradually.

The developments of science have brought to us perfect substitutes as this book will clearly show. Even commercial sugar, so injuriously adulterated, can be entirely dispensed with, substitutes furnishing abundant and healthful supplies. A little salt for "savor" would do no appreciable harm, until substitutes for that are thoroughly understood and appreciated.

For all mixing purposes pure water is preferred, and the economy and success attending its use will commend itself to everyone.

To make this book practical for those who are wedded to milk, and think food would be unpalatable without it, we would say that experiment yields preference to the unsweetened condensed milk, as being less injurious, than the present "bacteria laden" dairy milk, the conditions surrounding its production being more cleanly and healthful than those of the ordinary dairy.

Or if cow's milk is used take equal parts of new milk and water in mixing yeast bread, unleavened gems, rolls, biscuits, and crackers of all kinds.

Vegetable oils for shortening should possess sufficient attraction to induce their permanent adoption in every home, to the entire exclusion of animal fats. If you must have custards and puddings, use one-half water, making up the deficiency—if it exists—by the addition of a tablespoonful of corn-starch or flour made into a

smooth paste with cold water for one pie or pudding; indeed there are cooks who make these articles so palatable without a drop of milk, that one would not detect the omission.

A word to the wise is sufficient. Investigate, experiment in new lines of cookery, develop your ingenuity, and inventive genius,—your “faculty,”—and you will soon be your own independent cook-book. Cooking is the most simple of all arts to master, but one would think it the most intricate of all subjects to read even a few of the modern day recipes. It is the unnecessary things that render this art so perplexing and wearisome to those engaged in it, while to properly prepare and make palatable, healthful and nourishing simples, is the acme of the housekeeper’s art; the building up of sturdy bodies and normally healthy brains the triumph of maternal duty.

CHAPTER VI.

VEGETABLE OILS.

We require a certain amount of fat in some form, and the vegetable world furnishes it in great abundance. It has been thoroughly demonstrated that the fats obtained from seeds and nuts are superior in every way to animal fats, and wherever introduced their own merits will guarantee their permanency. Those at present extensively used for culinary purposes are obtained from the olive, cocoanut and cotton seed.

The olive bears the seal of great antiquity, is cultivated in many parts of the world and extensively grown in California, the olive ranches presenting a very beautiful appearance. It is almost impossible, however, to obtain the oil unadulterated. The *American Analyst* tells us that "Two-thirds of the olive oil sold in the markets of the world is born in the cotton fields of the southern states." It is a lamentable fact that almost anything bearing a foreign stamp seems more valuable to an American than the home production. Consequently he exports the purest, best, olive oil in the world, in company with pure, refined, cotton-seed oil, and they return to him mingled in the same bottle as pure olive oil, the olive being perhaps a minus quantity, as in some places the cotton-seed oil is filtered through the shells of the olive nuts and bottled. It is an almost universal table oil and

when pure is considered superior to other oils for that purpose.

An English paper reports that the seed of the linden tree yields oil of fine flavor for table use, does not become rancid and is an important acquisition. The linden is a fine shade tree, a free bloomer and produces an abundance of seed.

At Manheim, Germany, cocoanuts have for many years been made into butter for general culinary use. Abundant testimonials from physicians in public hospitals and private practice, housekeepers, hotel proprietors, all attest to its superior merits, in healthfulness, cleanliness and economy. It is said to contain the acids found in dairy butter ; is a pure, pearly white substance, very solid when cold, and contains 99.97 per cent. of edible fatty substance, considerably exceeding any other production of the sort in this respect. It is entirely free from water and salt, is easily digested, keeps indefinitely and even when exposed to the air *will not become rancid* like animal fat.

This butter is also manufactured in England. In my own experiments two years ago I used the German make and found it in every way superior to animal fats, dairy butter or cream. It is now manufactured in America by the Pure Food Co., Chicago, Ill. Although made in the city famous for its host of slaughtered animals, yet its cocoanut butter is free from germs and bacteria, "harmless" or otherwise and has successfully passed the specialist's test for animal fats. It is manufactured from shredded cocoanut, by a process that removes impurities and is guaranteed to be entirely free from animal fat and all injurious substances.

As a cooking fat, the Diamond butter oil, manufactured by the Merchants and Planters Oil Co., Houston, Texas, fills all requirements. It is pressed from selected cotton-seed and afterwards refined; the result being a clear, limpid sweet oil, so nearly resembling olive oil that only an expert could detect the difference in appearance, and only an epicure in taste, when used in food or as a salad oil. It is guaranteed free from animal fat, lard being too expensive to adulterate cotton-seed oil, but cotton-seed oil is extensively used to adulterate lard and other fats—if that can be said to be adulterated which is by so much improved. “But while the blending of cotton-seed oil with other ingredients has given rise to a diversity of products called by one name and another, there is no compound that has yet been made which is as good as the pure oil itself.”

It is however a significant fact that thousands of barrels, representing millions of dollars, are exported every year to France, Italy, Spain and other countries, and is there manufactured into butter and into olive oil, which is sent back to America, our country paying a large price and heavy duties on her own pure production obtained from the once despised cotton seed that Phoenix-like rose triumphant above every attempt to destroy it.

Personal experience may not be amiss and I will state that my first can of Diamond Butter Oil, sent for trial from the Food Fair being held in Philadelphia, Pa. in 1894, reached me a few days before Thanksgiving. Mrs. S. T. Rorer, the head of the Philadelphia Cooking School, was using it at the Fair in cooking demonstrations, and has since commended it and continued its use with the most satisfactory results. To test the new product I

quietly made use of the oil in every article prepared for my Thanksgiving dinner, which was served to a large company of guests. The quality of the dinner having been approved and the freedom from drowsiness and internal oppression, so frequent after such feasts, remarked upon, the guests were informed that the cause of it was doubtless owing to the fact that neither milk, cream, butter or animal fat had entered into the composition of the dinner. Explanations and recipes followed and friends have since then daily used the new vegetable fat, while the outlay for animal food has gradually diminished and children have become healthier, happier and less troublesome. In this connection I will say that persons subject to rheumatism and neuralgia have been entirely free from it since using vegetable fats and discarding animal food, butter and milk. Others have escaped common colds and La Grippe although living in the midst of these troublesome winter complaints. If tuberculosis is caused by partaking of diseased flesh, fats and milk, why may not throat and nasal diseases, asthma, neuralgia, gout, etc. be caused by such indulgence? Those who suffer might with safety try the change. The most fastidious cook would pronounce either of these fats faultless, and like myself perhaps—using both—be unwilling to decide upon the special merits of either. The food seasoned and shortened with them is fine flavored, light, delicate, entirely devoid of a heavy, greasy taste

AUTHOR'S NOTE.—Let it be here stated that this commendation of these two substances is entirely gratuitous and without the knowledge of the manufacturers interested. It is given solely in the interests of humanity and vegetarianism and because I am extremely desirous that this book shall prove a helpful text-book to the invalid, the truth-seeker, and to the many flesh-eaters who are at a loss to see a way clear to adopt vegetarianism. Peanut oil is already in the market and other things will probably be plentiful later on, but as these were the first, they are all I have as yet been able to test.

and odor, and their presence cannot be detected in any sort of cookery or seasoning. They are alike economical, one-third to one-fourth less being required to produce the most satisfactory results. The Chief Steward of the Palmer House, Chicago, states that the saving in expense to the house by using cocoanut butter is \$90 a month; similar reports are given from the Diamond butter oil.

SEASONING VEGETABLES.

It is a great mistake to season vegetables to excess, as their own flavor becomes entirely smothered in the flavors of extra grease and salt, to say nothing of pepper, which usually discolors vegetable dishes. The natural taste does not call for seasoning in vegetables, but the prevailing cultivated taste requires at least salt. This should not be added to vegetables until they are nearly or quite done, as it renders them tough. Use as little as possible as the flavor of food should be preferable to salt.

White Sauce. To one pint of boiling water add one rounding tablespoonful of entire wheat flour or corn starch that has been made smooth with a little cold water and one level tablespoonful of melted cocoanut butter or Diamond butter oil. Dip a few spoonfuls of the hot water on the flour and oil mixture in the bowl, and carefully stir all the lumps out; then add slowly to the boiling water, stirring constantly for five minutes at least, unless you cook it in a double boiler or a steam-cooker. Cook until there is no raw taste, and if lumpy pour through a wire strainer. This is a good rule for liquid sauces made of water. If thickened with white flour a heaping tablespoonful will be required; do not have them too thin, nor thick and pasty. This may be used

for toast, cauliflower, cabbage or anything requiring a white sauce. Sauces served on vegetables are not very wholesome and disagree with many people, because of the excess of liquid, which it is better to avoid with our food; lemon juice can be substituted. After one becomes accustomed to using vegetable oils for cooking and seasoning, they will find them a good substitute for dairy butter on baked and boiled potatoes, as well as all other vegetables. One tablespoonful of vegetable oil is sufficient for one quart of mashed vegetables; more oil can safely be added if not rich enough.

Lemon juice and oil mixed according to taste is an excellent dressing for all vegetables. In boiling the sweet vegetables, if water is left, utilize it for sauce, first testing it by tasting, and be convinced of the waste in boiling.

FRIED FOOD.

Scarcely anything in the entire range of cookery is more objectionable than the ordinary method of frying food in fat. A little butter, lard, cottolene or other fat is made hot in the frying pan, and the sliced vegetables, bread, eggs, oysters, meats, are put in to brown and harden into a grease-laden, indigestible mass, that would give a hyena the dyspepsia. It is quite impossible for the digestive organs to properly dispose of such material, hence fermentation and putrefaction often occur, and our stomachs become for the time a brewery laden with destructive gases and poisons, which result in various so-called diseases. Animal fats are exceedingly pernicious for frying purposes, and if we must continue to fry our food, let it be *immersed in good, sweet, vegetable oil—simply boiled in oil instead of water*. Anything can be cooked in

this way with perfect ease, cold mush, vegetables, fish balls, etc., and those who use animal food will find that steaks, cutlets, fowls, eggs, chops, fish, anything in that line, will be far more delicate in flavor and digest more easily when cooked by immersion in a kettle of hot vegetable oil—cotton-seed, cocoanut and olive oils all being in the market and sold at reasonable prices. Place the material to be fried in the frying basket, and then plunge in the oil which must be at the “flat boil or heat,” as it is called, and the food will not then soak fat, neither should it be hard and greasy if properly cooked. Fried foods, because so fashionable, are not by any means essential to the very best of “good living,” and might well be dispensed with by those who desire good digestion and a clean, brilliant complexion, free from oiliness, so common among the consumers of fried food, animal fats, butter and cheese.

The superiority of vegetable oils and fats over animal fats must be apparent to all those who consider the environments surrounding the growth and development of each. Nuts and seeds are the vital product of trees and shrubs living a natural life and ripening their fruits by healthful processes.

The animal leads an enslaved artificial life that induces disease. Then follow doctors and drugs and state expenditure of millions of dollars to arrest and cure(?) diseases and so improve their health as to prepare them to pay the penalty of an obedient, submissive life, by being slain, that we may consume their flesh and revel in luxuries their fat produces for our tables.

Unclean, unwholesome, indeed, is such fat, when in

contrast with pure, unadulterated vegetable oil and butter.

One need not be a vegetarian or even a hygienist to use these vegetable oils, for there are thousands of families using them, who also use animal food, finding economy in health and purse by so doing.

Part II.

CHAPTER VII.

BREAD.

THE EVOLUTION OF BREAD.

Grains were in the very ancient days eaten uncooked. When fire became a necessity they were softened by cooking. Later they were ground or crushed between stones and made with water into bread, cakes or wafers which were served "broken" instead of being cut. This was the primitive unleavened bread, and in some countries is still in use. Later, leaven or yeast was used, and to-day in some form is the universal material for raising bread. Yeast is the product of a fermenting process which leads to putrefaction.

This is caused by the action of germs that feed upon substances containing nitrogen. Animal food and milk containing an abundance of nitrogen rapidly decompose if exposed to the atmosphere. Carbonaceous products, fat, starch, sugar, do not so readily decay, unless combined with articles containing nitrogen. If yeast,—a germ product be added to these, heat and moisture supplied as in bread making, the sugar will decompose and alcohol and carbonic acid be produced. This process is the same to which fruits are subjected in making fermented wines and liquors. In bread making if the process continues beyond the first stage, acetic fermentation sets in, and we have a sour mass which, if further

neglected becomes the abode of millions of bacteria. In many homes the family bread baking occupies a period of from fourteen to eighteen hours between the tedious process of setting the sponge, mixing the dough, stirring it two or three times and "kneading from fifteen minutes to half an hour or more" (as recently given in a published talk on bread) and the time when it is ready for the oven. True some cooking schools teach that it may be done in less time, but the fermented result is secured by a larger amount of yeast.

Mrs. Emma P. Ewing than whom there can be no better authority says "As long as compressed yeast remains firm and has an *alcoholic smell*, it can be depended upon to give better results than dry yeast cakes, or liquid yeast."

The result then *is* alcoholic, without question, and when this is taken hot from the oven and served on the table it simply becomes a dyspepsia producing substance which cannot be recommended from a hygienic standpoint.

Shall we continue to brew our bread after the fashion of scientific alcohol brewing, or render popular methods of aerating bread without fermentation, is a question for popular discussion.

Chemical Bread. The great chemist Thomas Thomson, formerly Professor of Chemistry in the University of Glasgow, in 1816, showed that the only purpose secured by fermentation in bread making is the generation of carbonic acid required to raise the dough; this end can be attained by the use of carbonate of soda (common cooking soda) and muriatic acid by which the waste consequent on fermentation will be largely saved. The union of these two chemicals forms common table salt. The gas

arising from this combination in the flour, raises the loaf, and leaves a small amount of salt in the bread. This bread was quite extensively used in England many years ago, and to a limited extent in this country. Great care being required in the use of this acid, it has never become popular, but any deleterious effects resulting from the handling of it, can only be attributed to carelessness and are readily avoided.

Cream of Tartar and Soda. These chemicals were adopted as being better fitted to general use. They do not neutralize each other, but form a new chemical which is left in the bread, perhaps more injurious than common salt.

Baking Powders. These claim to be made of soda and cream of tartar, and when so prepared, have the merit of accuracy convenience and time-saving. But intelligent care should be exercised in selecting those which give the best results. It is undeniable that many baking powders contain injurious substances, and those that find it necessary to offer prizes, etc., are presumably inferior to those which can be sold on their merits. The author finds best results from Cleveland's baking powder.

Aerated Bread. From a small work on *The Healthy Manufacture of Bread*, by Benjamin Ward Richardson, M. D., F. R. S., London, England, I make a few extracts on AERATED BREAD.

“Joseph Priestly, who in the last century in his researches with fixed air, since called carbonic acid gas, found that this gas could be held by water, and from that circumstance invented the plan of impregnating water with gas and producing aerated waters. Indirectly it led to the compression of gasses. Directly it led to the commercial introduction of aerated drinks, and of aerated

bread. In 1836, Luke Hebert brought out a patent for making bread by machinery, in which aerated water, charged with carbonic acid, was the agent used for raising the dough. The principle was correct but imperfect in detail. He formed his bread into loaves and the escape of gas during that process ruined the bread. Dr. Johnston, Professor of Chemistry, in the University of Durham, published a paper on the subject, in 1847. An anonymous physician, wrote a pamphlet in 1846, entitled, "Instructions for making unfermented bread ;" In 1855, John Daughlish graduated from a Medical College in Edinburgh, and came home with a new idea about making bread, namely, that it would be possible to enclose flour in an air-tight receptacle, and to force into it aerated water, so as to render yeast unnecessary. He worked out his invention and in 1856, took out his first patent entitling it, 'An Invention of an improved method of Making Bread.' In Carlisle, England, the model machine was erected, experiments were successful and the name 'aerated bread' was first suggested. Failure and discouragement met the new invention ; finally, friends gathered around the inventor and a model bakery was erected at Islington. Most of the leading physicians of the day gave their decided approval. It was introduced into hospitals and with scarcely a dissenting voice the invention was declared to be one of the most important of the day."

"In the aerated bread process the utmost cleanliness attends every step of the proceeding. The flour is untouched by the hand or foot ; it is never exposed to the fumes of the bakehouse, nor to the emanations escaping from the breath and the skin of the workman ; as soon as the dough escapes from the mixer it falls into the baking tin and is instantly conveyed to the oven.

It is clean, sweet and pure, and in an hour from the time the flour is sifted, the process of making is completed, and this healthful bread is ready for the consumer."

The following is a letter from Dr. John W. Ward, of the New Jersey State Hospital, at Trenton.

"We have used aerated bread for a period of over thirty years, and the fact of our continuing it for so long, is a proof of the estimation in which it is held by us. I regard it as the ideal bread, more wholesome than yeast bread and it is very seldom that our dyspeptics are in the least hurt by it, even when it is served at the table soon after coming from the oven. Being entirely a machine made bread it is more economical in manufacture after the plant is once established, than the ordinary method of making yeast bread. The marvel to us here is, that it is not more generally adopted in public institutions. With this method we cannot have heavy or sour bread. We make both white and brown bread, but it is not served outside of the hospital."

This bread is now manufactured by the New York Aerated Bread Company. In reply to inquiries the proprietor writes :

"We would be glad if you could personally see our plant. We take pride in its scrupulous neatness, and the process itself is so scientific and cleanly, that it is a pleasure to see the bread turned out. It is drawn from the big mixer or kneader by a faucet or draw-cock, same as a glass of soda from a fountain. The arms which tumble or knead the dough while the pure carbonic acid gas is being pumped in, are made of steel. The flour is let in the mixer through a shoot; the water by a galvanized iron pipe, and no hand touches it. I believe it is destined to revolutionize bread making and is unquestionably the healthiest bread produced."

This bread was manufactured in Philadelphia, New York and Boston twenty or more years ago.

About the time aerated bread was perfecting its plant in New York, another method was developing in Denver, Colorado, for making bread, without hands, of the entire wheat, denuded of its outer siliceous covering. The invention resulted in

Shredded Whole Wheat Biscuit. This is a healthful bread made from the wheat kernel without grinding it into flour, and is put on the market ready for use without further cooking. One of its recommendations is its peculiar cleanliness, and further its keeping qualities. As offered for sale it has been so perfectly sterilized that with ordinary care it will keep indefinitely, and being prepared without the admixture of anything, not even water, and requiring no cooking it is necessarily the simplest preparation of the whole wheat berry which has been offered to the public and capable of being served in a variety of ways.

A little later *The Vegetarian Messenger*, (England) for May, 1895, contained the following on another method of bread-making without hands.

“At the Stuttgart (Germany) exhibition of ‘Baking,’ a new machine was shown by a Riga (Russia) firm, which made a dough from the uncrushed wheat grain. This was afterwards baked into good bread. The same machine shown at Frankfurt, Germany, where the ‘Kornbrod’ produced thus carried off the gold medal. Kornbrod has been greatly appreciated in Russia and deserves some notice. The corn (wheat) is so softened by a process of the inventor that it can be made into dough by this machine and need not be touched by hands. This ‘Kornbrod’ is said to have a beautiful brown color, a very pleasant flavor and is easily digested even when fresh. Numerous testimonials from the heads of public institutions and officers in the Russian army have been received by the maker; and it is stated by consumers of ‘Kornbrod’ for any notable period that the ordinary white bread has to them a mouldy flavor.”

Desirous of hastening the time when bread not made with hands shall become the popular bread evolved from the public bakeries, unusual space has been devoted to it

with an abiding conviction that when once established—and made of the entire wheat, graham meal and crushed grains—the purity, economy and healthfulness of such bread will open the way to the adoption of still more simple and perfect aerated breads, that are now used largely in private homes and sanitariums. These are rendered light by the immediate admixture of atmospheric air and perfected by the heat of the oven, and would be acknowledged by competent scientists and conservators of public health to be the real “staff of life.”

Yeast Bread. Although bread raised with yeast is not the best upon which to feed the world, yet as it is the most popular bread, directions will be given for making it in the best and most healthful way.

FIRST AS TO KNEADING.

When we consider the possible physical condition of the people who knead our bread, the danger of diseased emanations from lungs and skin that mingle with the air surrounding the bread-board during a lengthy kneading process; the bread set to rise perhaps uncovered and exposed to mixed odors from various culinary operations, pipes, cigars, and unventilated kitchens, the question arises, can we have pure, *clean* bread even at home except by “eternal vigilance.”

Anything then which would obviate kneading with the hands was desirable. Stirring with a spoon was laborious, although the bread was fine and good. This want

AUTHOR'S NOTE.—Since writing the above I have learned that the New York Aerated Bread Company have suspended their work; presumably because the American public is not yet sufficiently educated to sustain it. As one of its chief claims to popular favor was on the score of cleanliness, this failure is to be especially regretted.

has been met in the Prescott Bread Kneader which secures a practical, efficient method of kneading and mixing dough without hand contact. Simple in construction, easy to use, and to wash, there can be no excuse for the thrifty practical cook kneading her bread by the present method.*

TO MAKE THE BREAD.

First be sure the water used is pure, freshly drawn and heated, the utensils clean and flour or meal of the best quality. In cold weather warm the flour and utensils. Put one fresh yeast cake or its equivalent in a little tepid water to soften. Sift a large quart of any sort of flour you wish to use into your mixing bowl; prepare nearly a quart of warm, not hot water. Now dissolve the yeast; pour half the warm water into the flour, add the yeast, and begin to stir the mixture with a strong spoon, adding water until the dough is about as stiff as you can stir it. If you have a kneader you will be the gainer in every way; if not, continue the stirring until the dough is a firm smooth mass, and as stiff as it would have been had you kneaded it with the hands. This will make two medium sized loaves. Turn the dough at once into two small, lightly oiled baking pans. Smooth the loaves with a spoon dipped in oil or water, leaving them a trifle higher in the center than at the ends,—or if you prefer, turn it upon your slightly floured moulding board, and deftly form into shapely loaves. Set the bread in a warm place to rise. A small table or shelf, near the range, and on a level with it, is a suitable place; protect it with a clean bread towel, and shield from drafts by covering with a

*The Chreia Manufacturing Co. offer a Dough kneading device which consists of "The Only Complete Moulding Board," and a wooden appurtenance with which to manipulate the dough, without using the hand.

bread blanket which may be two or three thicknesses of woolen blanket that should be often washed and never used for any other purpose. In about an hour, remove the blanket, carefully turn the pans around and cover with the towel. When sufficiently light, which it should be in an hour and a half or two hours from time of mixing, if "conditions are right," put at once into the oven which should be of such heat that the bread will rise a little more before browning. Bake from forty-five minutes to one hour, and if not a rich brown all over, turn upon the sides and brown; if inclined to burn on top cover with pieces of clean, brown paper. Be sure to bake until done to the centre, so that when cut, no odor of fermentation, no soft spot indicating uncooked germs, that will destroy your loaf, are visible to taste or smell. When done set on end in a cool, airy place; and, as soon as cold, put in a clean bread jar or tin box, and do not cut until at least twelve hours old, but twice that age will be better. This rapid making of yeast bread may be new to many and some will hesitate to risk it with only once raising, but yeast bread so *sweet* and odorless can be made by no other method. The continued raising results in less sweet flavor.

If we must continue to apply the decaying process by fermentation to good sweet flour, and convert sugar into alcohol, by fermentation, let us shorten the process and thus retain the qualities of the grain as much as possible. Entire wheat flour, Graham, and rye require no additions; white flour may need a little salt, sugar, shortening, and phosphates to supply the precious elements the millers have removed and make it more palatable. It will require less water in mixing, and will not "go as far" by *one-third*

as bread of the entire grain ; while its “ staying ” qualities are very limited. These points are easily proven by watching children, who invariably consume double the quantity of white bread to satisfy hunger.

No special recipes are given for rolls and biscuit raised with yeast as they are not considered very wholesome. But being very popular they may be rendered less injurious by mixing the same as bread, using vegetable butter for shortening, very little if any sugar, or dates very finely cut may be substituted for sugar. The dough should be well kneaded in the kneader, turned at once upon the moulding board, and cut into biscuit; put in an oiled baking pan and treat the same as bread ; but do not eat them until at least twelve hours old. Warm them in a hot oven, and they will be as fresh as when first baked.

Dates, figs, and raisins cut in small pieces are a fine addition to raised bread where changes are desired.

Soda and Cream of Tartar. In using these chemicals, observe the exact rule; one level teaspoonful of soda, and twice that quantity of cream of tartar, which should be thoroughly mixed or sifted in the dry flour. The soda should be dissolved in a little warm water, and added to the mixing liquid. To get a level teaspoonful, fill your spoon, and draw a knife across it, thus leaving the bowl of the spoon exactly level full, if one-half a spoonful is desired, divide the level spoonful lengthwise with a knife.

Baking Powder. Baking powder if good is convenient because being properly mixed, there is less depending on carelessness or injudicious measuring.

BE ACCURATE IN MEASURING !

A level spoonful, a rounding spoonful and a heaping spoonful, are different measures and should not be confused. The level spoonful is secured as heretofore stated. The rounded spoonful, rounds above the rim of the spoon, as much as it dips below, while the heaping spoonful means as much as will lie on the spoon.

Most baking powders give their own measure, but to aid those who may desire smaller quantities of flour than that given, a less measure has been made, and readers of this book can proportion the baking powder thus—one level teaspoonful to one level cup of flour.

For the benefit of those who use baking powder a few practical suggestions and recipes may not come amiss. And let it be observed that in all of the recipes, milk can be used, or half milk, in which case rather less shortening is needed.

Bread. Put one quart of sifted flour of any kind you wish to use in your mixing bowl, and two rounding teaspoonfuls of baking powder ; mix very thoroughly together by sifting, or with a spoon ; add sufficient cold water to make a dough stiff enough to mold into biscuit, and turn at once into one or two small bread pans ; dip a spoon in cold water, smooth the dough, and bake in a hot oven ; from thirty-five to forty-five minutes. White flour absorbs less water than entire wheat, or graham, and no definite rule can be given for the water used, as it may vary from one and a half to two and a half cups.

Biscuit. Mix together three level teacups of entire wheat flour, and three level teaspoons of baking powder ; add to this, one and one-half teacups cold water and one

tablespoonful of vegetable butter, stir it thoroughly together as rapidly as possible and drop from spoon on an oiled baking plate or pan, or into *warm, not hot* gem pans; this will make twelve biscuits; dip a spoon in oil or cold water press them lightly to shape them, and put in a hot oven; bake fifteen or twenty minutes or until done. They should rise very quickly and bake without scorching. Equal parts of white flour and entire wheat may be used for these biscuit, or entire wheat and light gluten in equal parts.

Shortcake. Made the same as biscuit, with the addition of a little more shortening. Do not mix too stiff, and turn on tin plates or a baking pan, smooth lightly over with an oiled spoon and bake twenty minutes or until done. Should this cake be full of holes and caverns it indicates that the dough was too thin; if lacking in lightness make it less stiff. Equal parts of white flour and entire wheat may be used in the above manner.

Dumplings. One pint sifted flour, white or entire wheat, or equal parts of each, and one rounding teaspoonful of baking powder; sift or mix thoroughly together, add sufficient cold water to make a soft dough like biscuit; drop from spoon with the aid of a knife—closely together on an ordinary deep pie plate and set at once in a steamer or steam cooker. Be sure the water boils and keep it boiling until they are done, which should be in thirty-five or forty minutes.

If these are to be eaten with a rich stew of any kind they do not require shortening; if they are to be served with stewed or fresh fruit, shorten with one tablespoonful of vegetable butter.

These dumplings should be very light ; do not cut, but split them open.

Steamed Pudding. Prepare the flour and mix as in the preceding recipe, adding one tablespoonful of vegetable butter and half a cup or more of seeded raisins or other sweet fruit. Do not get the batter too stiff and turn at once into a slightly oiled granitized or earthen dish and set in steamer. Be sure the water boils and keep it boiling ; do not open the steamer for an hour and it may require ten minutes longer—should be well cooked. Serve with liquid sauce. The fruit may be omitted and the pudding served in slices with crushed fresh berries or other fruit. The same batter may be steamed in cups ; a layer of batter and layer of berries or other fruit, with the top layer of batter ; fill cups two-thirds full ; serve with fruit sauce.

WHEAT.

Each grain of wheat is an epitome of man, a miniature loaf containing the elements comprising the body of man. As it stands in the field waving its golden plumes in the sun it is indeed the "staff of life," but when it reaches our homes in the domestic flour barrel, it may best be called the staff of death, for animals fed exclusively on it for a few weeks are literally starved to death. Evidently "man plumed with conceit" assumed the right to impoverish and deteriorate the grain by removing the gluten, salts and phosphates that build the nerves, teeth and bones, leaving us only fattening starch to feed upon. Is it then any wonder that children fed on "good bread and butter," are nervous, irritable, rickety or over-fat, are bow-legged or otherwise deformed, when their bread lacks the elements for the building of solid bones? Cartilaginous

bones, soft fat, and imperfect teeth are the product of white bread, the finer and whiter it is, the more disastrous the result to the young. In spite of teaching, the foolish and fanciful custom grown into life long habit is still in the ascendent and places the snow white loaf upon the table, instead of the softly tinted brown, which is far more nutritious, and would be preferred if its real merits were better understood. It is a fact that we must pay for and consume three or four times as much white bread, and white flour to obtain the same value in phosphates, salts, etc., that are found in the flour or meal of the entire grain. And yet more than two-thirds of our people purchase, make and feed their families on white bread, and make white flour the basis of nearly every article prepared in the pantry.

It need be no longer a matter of surprise that nervous, restless men, women and children are always ready to indulge in a "bite of something" at home or abroad, or that they are also prepared to drink any and everything that tastes good, and indulge in chewing tobacco and gum, smoking cigars and cigarettes. Even "tea cigarettes" having now appeared in market, there can be no better evidence of the stimulating effects of tea.

In the impoverished food supply of the world, that fails to properly nourish, we shall discover why we have saloons and ten thousand ills, and men and women created devoid of will to resist temptations daily before them.

"By their fruits ye shall know them." By their food ye shall determine the quality of their fruits whether warlike or peaceful, healthy or diseased.

Home is the starting point of these "fruits." From the moment the teeth appear and even earlier good bread

is the foundation for a perfect physical structure. When the world recognizes this truth with sufficient clearness to practically illustrate it in "our daily bread," we shall be no longer dependent upon patent nostrums advertised as brain foods, nerve renovators, predigested foods, flesh formers, blood makers, fat destroyers and phosphates. All these desirable articles that are lacking in the body, through improper food, will be found in Nature's laboratory, produced from earth, air and sunlight, and vitalized by natural electricity. That intelligence of the highest order may be developed in the race, that will lead us out and away from vice and crime, from social and moral sins and establish us upon a higher plane of thought and act, *we must build and sustain our bodies upon the best and purest material.*

Graham Meal. It was a recognition of this fact, namely, that in the effort to make flour fine and white, millers had discarded all but its starchy properties, that led Dr. Graham to protest, and to furnish a half starved nation with flour which should contain all the properties of the wheat grain. Its success proved a temptation to dishonest millers, hence the market is often supplied with inferior wheat mixed with coarse bran and refuse including dirt, and labelled Graham flour.

When physicians advise their patients to eat Graham bread, the above is the flour they usually obtain, unless they investigate for themselves. No wonder the senses of an invalid loathe the sight of the coarse, dark mixture, and insist upon sifting it, which process wastes nearly half.

Then a serious mistake is made by the cook when she adds to this a quantity of *molasses, sugar, salt, lard or*

butter and yeast, producing what is sometimes known as "bread for dyspeptics." Such bread never cured a dyspeptic, but it has doubtless assisted in creating many of them.

The original "Graham meal" was made of the best wheat, including the entire hull, as the outside covering of the grain was considered an essential element in the promotion of health. As a rule it was used without sifting.

There is no excuse for any one using an inferior quality of flour, meal or cereal, as there are several reliable manufacturers who make from the best of wheat, a product as good, if not superior to the original. Among these are The American Cereal Company, Akron, Ohio; Readshaw, Dansville, N. Y.; Arlington Mills, Arlington, Mass.; Franklin Mills, Lockport, N. Y.; Glen Mills, for which Dr. W. L. Johnson of Boston is agent; the Health Food Co. of New York and Boston; the Battle Creek Sanitarium at Battle Creek, Michigan. There are doubtless some others, but the author cannot be expected to know all firms. These are mentioned not with the intention of giving a "puff" to manufacturers, but because it is earnestly desired to make this book practically useful to those who have heretofore known only the fine white flour, or possibly have had unfortunate experiences with spurious Graham or entire wheat flour.

When properly prepared, the wheat grains are denuded of the very thin outer siliceous coating and the kernel emerges, clean and wholesome containing all the essential properties which nature has stored therein.

Wheat that is coarsely ground and the "Graham" made from red wheat should be sifted. The white wheat is superior for bread and as a rule requires no sifting.

With good flour, a good oven, clean utensils, pure air, pure soft water, boiled, if hard or suspicious, and a tidy, healthy cook, interested in her work, we can place upon our tables the real "staff of life" prepared in dainty and attractive forms.

Unleavened Bread. This bread is sweeter, more nutritious, economical and "goes farther" than any other bread. It is the "peer" of all bread for making children into strong, symmetrical and beautiful men and women.

Those who doubt its good qualities have probably never eaten the light, delicious varieties that form a portion of the daily bread in Hygienic Sanitariums and also in thousands of homes, in the form of gems, rolls, crackers, cakes and wafers made from all the various grains and aerated by fresh air and the heat of the oven. The "unleavened bread" of thirty and forty years ago was known as "diamonds" and "gems;" to these have been added hundreds of productions, in mixtures or combinations of the various grains.

The unleavened bread in use among the Jews, during their "Feast of the Passover," is made by machinery, the touch of hands being carefully avoided. It is made from the finest brands of white flour, but referring back to the Mosaic dispensation, it is fair to assume that fine flour was then unattainable and that this Passover staple was made from the entire grain.

Gems. When "Graham" meal began to deteriorate, various expedients were resorted to and milk, soda, baking powders, eggs, sugar and shortening became the fashion for making "gems" palatable, until the original has been almost totally eclipsed by its more modern "sisters, cousins and aunts," who have no right to the name.

of "gem." It is, however, possible with the best Graham meal to restore the gem to its former popular position, deservedly such, because easily made and very esthetic in appearance on the table.

HOW TO MAKE GRAHAM GEMS.

First, have a good fire and, if of wood, do not let it get low about the time you are ready to put the gems in the oven. Very lightly oil the gem pan and heat it in the oven or on the stove, but do not let it burn. If your oven bakes *very* quick on the bottom, do not heat your pan too hot, although the rule is "hissing hot," but there are differences in ovens that must be learned. Put two and a half cups of cold water in your mixing bowl and with your left hand sift into it three level cups of meal; stir the batter with a strong spoon as you add the meal—a shallow wooden spoon is best—then beat briskly for two or three minutes standing near an open door or window if possible, in order to incorporate as much fresh air as possible. Drop them by large spoonfuls into the hot pan and put them in a hot oven. Watch them and carefully remove them if necessary. If you like a good deal of crust, do not fill the pans full, and bake them about twenty minutes. If the pans are full they will rise from one-fourth to one-half inch above the top of pans, and in from twenty-five to thirty minutes should be well baked. Remove them carefully to a plate, and let them stand a few moments before serving. Never cut unleavened bread when new, but break it carefully apart; if too moist inside, let it stand until nearly cool.

Diamonds. Put in your mixing bowl three teacups boiling water, and add to this as quickly as possible three level teacups Graham meal; stir it rapidly to incorporate

the meal, and turn at once on the well floured molding board; sift flour over the dough, mold slightly, roll three-fourths of an inch thick; cut in strips an inch wide, and three inches long; making them diamond shape. Lay them in baking pans, or on perforated tin plates with space between each, prick with a fork and bake twenty-five minutes in a hot oven. When about half done, turn on the side, that they may brown all over. Allow them to partially cool before serving. Remove with a soft whisk brush any dry flour adhering to them. Keep the brush clean and never use it for any other purpose.

Graham Rolls. These are considered by many the best form of Graham bread. They are made similar to the Southern "Beaten Biscuits," except in the ingredients used, those being made of fine white flour.

The coldest water and the best white wheat Graham meal are the essential materials used; good common-sense and judgment should also be added to these, and "no such word as fail" admitted. Into a quart of unsifted Graham meal, pour slowly sufficient cold water to make a dough stiff enough to handle easily. Dust your molding board with flour, and turn the dough on it clean from the bowl. Incorporate all the fresh air possible by stretching, folding, kneading and deft handling, from ten to twenty minutes. If you use a kneader it will take less time. If your dough is too soft the bread will not be light; if too stiff it will be hard and inferior.

Roll the dough out three-fourths of an inch thick and cut in strips an inch wide and three or four inches long; form them into rolls if desired or lay them at once in a pan or on a perforated grate—see *Cooking Utensils*—leaving space between the rolls and bake in a quick oven half an

hour. After twenty minutes turn them half way over that they may brown on all sides alike.

If baked on a perforated grate, this turning becomes unnecessary, hence it is better to have all *rolls, biscuits and crackers* baked on such a grate, then the heat will penetrate all sides of the dough alike. The smaller the rolls, the lighter they are. They are very nice in small biscuits and rings.

Unleavened Bread. This should be carefully handled, and if any is left, when cold, put it in a covered tin pail or bread jar. It keeps moist longer than other bread, and may be warmed by laying on a clean grate in the oven dry, or dipped in cold water, and laid on plates to heat quickly: it is then as good, if not better than the day it is baked, being much more tender. If you have a bread kneader, two or three quarts of flour may be used at the same time, and a portion of the dough made into rolls and biscuit; put the remainder on a plate, cover, set in a cool place until the rolls are done, then knead the other piece of dough a few minutes, and make into wafers and crackers.

Crackers and Wafers. Into two cups of cold water stir sufficient Graham meal to make a dough quite stiff. Turn out upon molding board and knead as in the preceding recipe, sifting flour over the dough as you knead, as it must be very stiff. Roll out one-fourth inch thick or less; cut very small, round, square, or in narrow strips three inches long; prick and lay on the grate to bake. The heat should be even, and bake them through to a delicate crispness.

Wafers are made in the same way, only roll them thin as a knife blade. They will bake in a few moments, and will also burn if not closely watched.

These forms of unleavened bread of wheat, furnish variety in taste and quality, soft, hard, and crisp, containing all the elements, the flavor and richness of the grain without adulteration.

Cold Mush Rolls. Take mush made of rye, corn, oat-meal, Graham or any kind of coarse cereal, and stir into it Graham meal to make dough stiff enough to handle. Make up or cut into small rolls or biscuits, and bake at once in a hot oven.

Hot Mush Rolls. Into boiling hot mush or cereal of any kind, fresh or warmed over, stir sufficient Graham meal to make a rather stiff dough. Turn it at once upon a well floured board, knead very little, cut into shape and bake in quick oven. When corn meal is used, fine white flour may be added if desired, and also in the cold mush rolls.

Combination Graham Gems. Graham meal and entire wheat flour in equal parts make very superior gems and rolls. Equal parts of rye or corn meal may also be added to Graham, which should be beaten to a cream. Dried, sweet fruits cut fine may be added by way of variety, a half teacup to a pan of gems, or in any proportion to suit the taste; a dessert spoonful of liquid vegetable butter may be used in a pan of gems made with water, and also a heaping table spoonful of any kind of finely crushed nuts will shorten a pan of gems.

Snow Gems. Into three parts of clean, light, dry snow mix two parts of Graham meal, as speedily as possible; fill the hot pans very full, but do not press the mixture nor allow it to melt while mixing; put in a hot oven, and bake quickly.

The above mixture may be baked in a large baking pan if desired.

In making unleavened bread of any kind do not be discouraged if unsuccessful, but try again. The oven may have been too hot or too cool; the batter or dough too thick or too thin; there is "a right and perfect way" and experience will find it.

ENTIRE WHEAT.

This is the name given to a fine flour which has been evolved since the flour introduced to the world by Dr. Graham, and which took his name. He first called attention to the fact that the human family were suffering from inadequate and unbalanced nourishment owing to the fact that so many of the nutrient qualities of the wheat were lost in the manufacture of white flour. While "Grahamites," "vegetarians," and "cold water cures" were healing the sick and improving the condition of many others, millers with equal energy and industry were pushing inventions toward the manufacture of still finer, whiter and more impoverished flour.

That this has been a potent factor in producing much of the invalidism prevalent in the world, the faulty teeth, undeveloped muscle and general debility, is stoutly asserted by hygienists everywhere. It is true that the world is full of men and women who lack backbone to carry them properly through it, and sufficient healthy nerve to enable them to resist the temptations that surround them; and that the impoverished "staff of life" on which they have so entirely leaned has had much to do with this condition, is coming gradually to be recognized.

After Graham flour had been some years in use, and the truth of Dr. Graham's theory that the human system

needed all the elements contained in the wheat kernel was established, certain mills began the use of the whole wheat grain, and their flour being of equal fineness with the white flours, has no possible objection except its color. This as only a matter of education and experiment will prove that it is easily made attractive to children and that parents should lay aside harmful preferences for the sake of their little ones, ought not to need urging. This flour is made from the entire wheat kernel, except the innutritious, indigestible outer skin or husk, which is not food.

The original manufacturers have stated the case so clearly it will not be amiss to quote from their circular as follows :

“It is time people paused in this devitalizing system of impoverished white flour eating, and began to intelligently consider and weigh the consequences it is silently but steadily entailing, not only upon themselves but upon their children and their children’s children. With such a natural and nourishing food as this *Flour of the Entire Wheat* within reach, it is a cruelty to feed children upon white flour, entailing imperfect development and physical degeneration upon them, as well as disease. Liebig long ago predicted that this excessive starch flour eating would result in disaster to the race, the truth of which is now plainly seen in many directions, in the changes of the types of disease from strong to weak—in the almost universal exhaustion of nerve force, which never before in history was so taxed as by the American people—in the great prevalence of nervous diseases—in the sudden breaking down of persons apparently in the full tide of health and vigor—in the worn and wearied look of the people, especially the women, as can be seen by scanning the faces of any public assembly.”

Finding no recipes for using the entire wheat, which

did not involve milk, eggs, butter or baking powder, the writer made experiments in the various forms of unleavened bread, finding them unexpectedly satisfactory. Any form of unleavened bread without shortening not intended to represent crackers, is best eaten the second day. Keep it covered in a jar or pail for twenty-four hours then heat it in the oven, and it becomes as tender as can be desired.

“Cold Blast Flour” and “Very Fine Graham” are made by the same recipes as given for entire wheat.

Gems of Entire Wheat Flour No. 1. Put three level teacups of sifted entire wheat in your mixing bowl, and two teacups cold water; stir and beat to a smooth batter, then add from one-half to a whole cup of cold water to make it the consistency of sponge cake. Beat thoroughly two or three minutes in fresh air if possible, fill the hot gem pans and put in a hot oven. In twenty-five or thirty minutes they will be done, and as light as the conventional “pop-overs.” Remove them carefully from the pans, and let them stand on a plate five minutes or more before serving. If your oven heats very hot on the bottom, do not have the gem pan “hissing hot,” as the crust will be too hard. If the gems fall from the top crust, they were not quite stiff enough; if too moist when opened let them cool longer. They should present a fine, spongy appearance. When cold put in covered pail or jar. They may be eaten cold or warmed on the oven grate; or dip them in cold water and lay in a warm gem pan; cover with a long tin plate and when heated through they will be better than the fresh gems.

Gems No. 2. Measure three level teacups of entire wheat flour, and mix with it one heaping table-spoonful of

finely crushed nuts,—pecan, walnut, Brazil nut, pignolia, or any kind preferred; add two cups cold water, beat or stir to a smooth batter; then add one-half cup or more cold water to make the batter like sponge cake. Incorporate all the fresh air possible in two or three minutes' beating and stirring, or until it is full of air bubbles; fill the hot gem pans, and put at once into a hot oven. Bake and treat as in the preceding recipe.

Gems No. 3. Into three level teacups of entire wheat flour, put two teacups of cold water, and one level tablespoonful of liquid vegetable butter; stir and beat all the lumps out, then add water sufficient to make a thin batter; beat to a cream, or until full of air bubbles; fill the hot gem pans and bake twenty-five or thirty minutes in a hot oven. Do not scorch them.

Gems No. 4. Into three cups of entire wheat put one heaping table-spoonful of finely cut raisins, dates or whole sweet currants and one dessert-spoonful of melted cocoa-nut butter; mix them with a spoon and complete the process as in the preceding recipe.

Banana Gems. Peel and beat to a cream one ripe banana and one tablespoonful of liquid vegetable butter; add to this three level teacups of sifted entire wheat flour, and two teacups of cold water; beat and stir until smooth, then add water to make it a little thicker than sponge cake, and incorporate all the fresh air possible in two or three minutes' vigorous beating and stirring. Fill the hot gem pans, and bake half an hour. Treat as other gems, but let them cool for ten minutes before serving.

Blueberry Gems. Put three level teacups entire wheat flour in your mixing bowl, two and a half teacups strained

blueberry juice, one level table-spoonful liquid vegetable butter, one level table-spoonful sugar, or twice that quantity of date or raisin juice ; stir and beat into a smooth cream, then add sufficient cold water to make it a little thicker than sponge cake batter. Drop into a hot gem pan, and bake thirty minutes in a quick oven.

Cocoanut Gems. Into three level teacups of entire wheat flour, mix thoroughly one heaping tablespoonful of freshly grated cocoanut ; add to this two teacups of very cold water and beat to a smooth batter ; add nearly a cup of cold water to thin the batter, and beat until full of air ; fill hot gem pans and bake in a hot oven half an hour or until done.

If "conditions are right" all the above gems will be as light and delicate as "pop overs," and this obviates the necessity for using baking powder, yeast, chemicals or eggs in gems.

Rolls of Entire Wheat No. 1. Put a quart of sifted entire wheat flour into your mixing bowl, and add cold water sufficient to make a stiff dough, not too stiff or the bread will be hard. If you have a kneader use it where much kneading is required as in rolls and crackers, and a superior bread will be the result. If you must knead by hand, dust the molding board with flour, and turn the dough out clean from the bowl ; knead and manipulate the dough as in the hard Graham rolls, cut and bake in the same manner.

The perforated grate, and small tin shapes for cutting rings, biscuits and rolls, will save much time, and also improve the bread.

Entire Wheat Biscuit No. 2. Take the same quantity of flour and water as in the preceding recipe, adding

to it two teaspoonfuls of vegetable butter, or two heaping table-spoonfuls of crushed nuts. The dough must be very thoroughly kneaded, and carefully baked, treated in every way as in No. 1. This bread should be light, tender and sweet. Do not scorch it.

Cocoanut Biscuit. Warm your mixing bowl, and put into it three teacups of boiling water, one-half cupful grated cocoanut, and three teacups of entire wheat flour; stir into a dough as quickly as possible, and turn clean from the bowl on a well floured molding board; sift a little flour over it, knead slightly, roll three-fourths of an inch thick, cut and bake on a perforated grate, in a quick oven, half an hour.

Peanut Biscuit. These are made precisely similar to the above and can be had with less trouble, as the nuts can be crushed with the rolling pin.

All varieties of nuts may be used this way, and circumstances and individual taste will suggest experiments.

Entire Wheat Crackers No. 1. To one pint entire wheat add sufficient cold water to make a stiff dough. Knead ten minutes; roll one-fourth of an inch thick, cut and bake on the grate in a hot oven, to a delicate crisp.

No. 2, with Butter. Make and bake as in No. 1, adding one table-spoonful of vegetable butter.

No. 3, with Nuts. Make as in No. 1, adding one heaping table-spoonful peanut, filbert, pecan, or other crushed nut; treat and bake as above.

GLUTEN FLOUR.

Highly recommended in various diseased conditions, can be successfully made into rolls, biscuit and gems after the recipes given for entire wheat flour. Care should be

taken to have the dough a little stiffer, and gems somewhat thicker.

White Flour Nut Biscuit. This and the following recipe, though made from the tabooed fine white flour are here introduced to show that home-made unleavened bread can be made of that flour, and without dairy butter shortening.

Mix thoroughly together two slightly rounding teacups white bread flour, and one heaping table-spoonful of finely grated cocoanut; pour over it two teacups boiling water, stir into a mass and turn upon the well floured molding board; knead one minute, roll three-fourths of an inch thick, cut and bake at once on the grate in a quick oven. A larger quantity or a different variety of nut may be used if desired.

White Fruit Biscuit. Two level cups of white flour, one-half cup of seeded and chopped raisins mixed with the flour; add two teacups boiling water and one table-spoonful of vegetable butter. Mix, cut and bake as in the preceding recipe.

RYE.

Any of these recipes apply to rye, save that it should be slightly stiffer, whether the flour or meal is used.

Corn Meal Biscuit. Pour boiling water upon two cups best fine corn meal, and stir to a stiff dough. Turn it upon a well floured molding board, get into shape, press out or roll an inch thick, cut and bake on perforated grate in quick oven thirty minutes.

Corn Meal and Squash Biscuit. Take two cups boiling hot winter squash, mash very smooth, and stir into it sufficient fine yellow corn meal to make a dough stiff

enough to handle easily ; turn on the floured board and mold into shape ; roll an inch thick, cut and bake in a hot oven thirty minutes.

Corn Meal and Sweet Potato Biscuit. Make and bake as in the preceding recipe, adding to the hot potato one cup of boiling water to make it the consistency of squash.

Corn Meal and Cocoanut Dodgers. Mix thoroughly one cup granulated corn meal and one scant half cup finely grated cocoanut, pour over it one cup boiling water stirring it well, then add sufficient cold water to make a dough that will almost retain its shape when turned in baking pans, spread with an oiled spoon, cover with thin slices of cocoanut butter, and bake thirty minutes or until well done.

Corn Meal Crisps. One cup coarse or fine corn meal, wet with sufficient cold water to make a thin batter. Pour at once into an oiled tin plate or baking pan and bake to a crisp, but do not scorch it. The batter should be one-fourth inch thick in the pan.

A dough that has scalded meal must be stiffer than one where the dough has not been scalded.

“When I am going to use corn meal for any breakfast dish I like to scald it the night before so the particles are swelling and softening all night.”—*Anna Barrows*.

CEREALS, MUSHES AND GRUELS.

CEREALS.

The nutritive value of cereals is nearly three times that of flesh. Their use is becoming more general, but they are often ruined by an excess of salt, which destroys their

delicate flavor; and also by being either too thin or too thick, and not thoroughly cooked.

Cereals sold in packages and partially cooked, require much longer time than that usually advertised on the wrapper, to render them digestible. They should be cooked in a double boiler, closed steamer or a covered tin or granite-ware pail set in a kettle of boiling water, and cooked from twenty minutes to half an hour. They are inexpensive, nutritious, easily prepared, and in hot weather a steamer over a single burner kerosene stove will cook them to perfection.

One objection has been urged against the use of mushes, which it may be well to notice here. As usually served, they are eaten alone and hence *get no mastication*—in other words get no admixture of saliva,—being so soft as not apparently to require it. This fact has led some health teachers to repudiate them altogether. It is a fact that food thoroughly masticated is half digested in the mouth. To obtain this result, all soft food should be eaten with crackers, wafers, dry toast, hard rolls, gems or bread, made from Graham or entire wheat flour.

GENERAL DIRECTIONS.

Cracked and pearled wheat, rolled and pearled barley, coarse and fine hominy, and oatmeal groats, all being coarse, require from three to six hours to steam or boil, and from four to five or more cups of water to one cup of grain. Use a third more water in cooking if they are to be eaten cold. If needed for breakfast cook the day before; put in a mold or china dish, and set in a very cool place. To steam these grains have the water in the steamer boiling continually. Measure the cup of

grain and put it in the double boiler, or a granite ware or earthen dish if cooked in the steamer. Measure four or five cups of cold water, according to the coarse or fine quality of the grain, and pour it on the grain stirring it well. Cover and cook until done. Stir carefully in an hour, and if it seems too thick add boiling water.

With Fruit Juices. Cereals may be served cold or warm with fruit juices. If served cold they should be carefully molded in shallow cups or shells and served with the fruit juice poured around them.

Wheatlet and Cracked Wheat. Either of these may be varied for those who have a "sweet tooth" by lightly stirring in with a fork, when ready to serve, a cupful of dates, or of raisins which have been previously seeded and steamed.

Cereals with Figs. For this use the figs should be thoroughly washed, then steamed and sliced, and added when the food is ready to serve.

With Fresh Fruits. When these are added they should be lightly stirred in, after the cereal has slightly cooled.

All cereals are more healthful and the flavor more pronounced if allowed to cool a little before serving. And in all cases where fruit or nuts are added this rule should be observed.

Cereals with Nuts. The various forms of wheat and gluten are best to use with nuts. After they are cooked sufficiently to be pronounced done, let them cool a while and then stir in the nuts. Half a cup of nuts to a pint of the food is really a large proportion and from this the quantity can be graded by individual judgment. English walnuts, pecans and hickory nuts are best for this purpose.

Fruit Mush. This is an excellent breakfast or dessert dish. Raspberries, strawberries, blackberries or any other kind may be used. Stew a quart of berries in sufficient water to cover them and thicken with entire wheat flour or corn starch, to the consistency of mush. Serve warm, or mold and serve cold with fruit juice.

Jellied Cereals. All cereals may be served in the form of jelly either plain or with fruits. When used with fruit, the cereal should be of a consistency that will retain its form when cold. Wet a mold in cold water and then put in the cereal in alternate layers of cooked dried apricots or peaches, or if in season, with fresh fruit. If cherries or plums are used they should be carefully washed, and when the stones are removed be careful to injure the shape of the fruit as little as possible. Serve with raspberry or grape juice.

CEREALINE.

This is a light and delicate preparation of white corn and has a peculiarly dainty look both before and after cooking. As many recipes come with each package and most of them contain butter or eggs, they are not quoted here, but a very delicate mush can be made of it, and it can also be mixed with entire wheat in making unleavened rolls, etc.

MUSHES.

The grains being more finely ground for mush, should begin to cook in boiling water. When done they must not be thick like bread sponge, neither thin enough to spread much, but dish up clear and freely. They may be served plain, with fruit or fruit juice, wafers, crackers or rolls; or mold and dress with fruit as for cereals.

Graham and Rye Mush. About two cups of meal of either kind desired will be sufficient for two quarts of boiling water. Sift the meal slowly into the water with the hand, stirring with a spoon to prevent lumping. Boil slowly from twenty to thirty minutes.

Oatmeal Mush. Purchase the best oatmeal in bulk, as it gives better satisfaction than that put up in packages. To one cup of coarse oatmeal add five cups of boiling water; cook in double boiler or steamer from one and a half to two hours without stirring. Or it may slowly boil on the back of the range for two hours, stirring as little as possible.

Corn Meal Mush. Put two quarts of boiling water in a granite ware kettle, and sift into it with the hand, sufficient of the best corn meal, white or yellow, to make a thick gruel; stir it to remove the lumps and set on the back of the range to slowly cook three hours; or steam it four hours, this being the better way. Owing to its oily nature, it is fattening and heating, and is a better winter than summer food.

The U. S. Government has been sending people to Europe to teach the value and uses of corn meal, and it might be well to support a few home missions in that line.

GRUELS.

These may be easily prepared by adding to cold mush sufficient boiling water to thin it. Stir and cook a few minutes, and strain through a thin cloth or wire strainer. They may be thin or thick, and if molded in cups they make delicious jelly. Served with grape or other fruit juice they are far more desirable for delicate children and invalids, than the scores of much-lauded extracts and jellies, often made of questionable material.

some of which according to the latest authority are a "delusion and a snare."

Corn Meal Gruel. Put two heaping table-spoonfuls of the best fine corn meal in a bowl, and make a thin, smooth paste with warm water; add slowly one quart of boiling water; stir it smooth and either boil or steam three hours. Season with lemon, pineapple, grape or anything desirable.

Oatmeal, barley or other grain gruel may be made in a similar manner, well cooked and strained.

RICE.

Rice is very nutritious and easily digested. It may be prepared in a great variety of ways, but steaming or rapid boiling are the perfect methods of cooking this valuable cereal.

Steamed Rice. Wash in three or four waters one cup of the best rice. Put it in an earthen dish with three cups of cold water. Set in steamer and cook one hour. When half done, if too thick add boiling water. Serve warm with fruit sauce dressing, or with fruit, or mold plain, as other cereals. Do not break the grains.

Steamed Rice with Raisins. Prepare as above and add one cup of well washed raisins. When done treat as plain rice, or serve with sauce of chopped dates and figs; flavor with lemon if desired. Handle carefully so that every grain may be whole.

Boiled Rice. Wash one cup of best rice, and put in a porcelain kettle with three quarts of rapidly boiling water. Cover and boil half an hour. Drain off the water and set on the back of the stove, or in the oven to steam dry. Do not stir it; and when done it should be an appetizing

mass of entire white kernels. It may be served as a vegetable, or with fruit dressing. Very lightly molded with sound, fresh, bright colored fruit, it makes an artistic dish. Use the water you drain off for gruel or any purpose that may add to the dinner.

CHAPTER VIII.

FRUITS.

These life giving, humanizing and soul inspiring productions from the hand of our bounteous mother, surpassing in beauty and aroma any other food, should form at least one-third or one-half our diet during their period of perfection. From the ripening of the earliest strawberry to the latest peach or apple, each and all is filled with its own delicious, health-giving nectar, fit not only "for the gods," but fit substance to make physical and spiritual gods of the human race.

The superiority of fruits as an article of diet is no longer an uncertain problem. The purest water is in their juices; the sugar they contain abundant and harmless; the delicate acids stored in their substance are cooling, and an essential element aiding digestion. The possibilities of the sun-tinted fruits excel all other productions of nature. They clear and invigorate the brain, cheer the mind, beautify the body; work wonders in sickness, and are so permeated with electricity their free use will impart vigor, suppleness and grace to the entire body.

Fifty years ago, fruit outside of pasture and orchard was a luxury. In the homes of poverty it was almost unknown and was rigorously denied the invalid. To-day it is a household necessity, plentiful and cheap, and the physician who does not permit it to the sick is far behind

the age. The apple, "king of fruits," has more than twelve hundred varieties, some one of which will stand by us the year round. The pear numbers more than a thousand varieties. Peaches, cherries, plums, apricots are being reinforced with new varieties and importations. The regal grape holds imperial sway in flavor, odor and life-giving, health-restoring properties. The domestic strawberry, queen of small fruits, brings in her train berries of all colors, sizes and flavors, to which is added many contributions from Japan and the far east. Pomegranates, apricots, Japanese persimmons and Chinese chestnuts (resembling a raisin enclosed in a shell) are among the novelties already attainable through our wide reaching train and steamship service, and that many others will be added, is within the scope of probability. The "latest *dates* from Europe" are no more essential for the mind than those which furnish food for the body, and American and Arab alike feed on the edible which nature prepared for her children in torrid climes.

Lemons, limes, oranges, grape fruit are popularly known and their value in some measure understood. The latter, least of any perhaps, yet really ranking second to none. All these and many more mother nature has prepared in her vast laboratory, and when ripe they require neither cooking nor additions to render them acceptable to the unperturbed taste. The sweet may be blended with the sub-acid varieties, if desired, while figs, dates and raisins furnish natural sugar in abundance, and other fruits lend their acids and flavors to any desired extent.

The increasing demand for *fruit as food*, means better health and cleaner morals; clearer heads and more normal lives in every direction. Fruit trees cannot be too

numerous, nor fruit too abundant. It alone would prove the most powerful factor in exterminating the alcoholic demons that rule the world and are a standing disgrace to civilization.

There are hosts of people troubled with languor, headaches, nervousness, neuralgia and "biliousness"—which mean a very "unclean temple"—who, if they would omit their breakfast for a time, or make it entirely of fruit, or fruit with nuts, whole wheat gems, rolls or crackers, *without liquids*, would soon find improvement in health, and be able to dispense with the usual "spring medicines," perhaps escape an expensive fever or other illness. Nothing is better than the juice of half or a whole lemon in a glass of water cold or hot, before breakfast, if one does not "feel just right," or a glass of clear cold or hot water. It cleanses the system from the effects of an excess of fats, sweets and starch; or a deficiency of outdoor exercise, and lack of proper ventilation during the winter.

Fruits thoroughly ripe are best eaten uncooked, as cooking tends to destroy or modify their flavor, and renders some varieties so acid as to require the addition of sugar or sweet fruits to make them palatable.

The apple, pear, orange, banana, and all solid fruits should be well washed and dried with a clean towel.

Grapes, currants, cherries and similar fruits, wash by dipping several times in cold water, and drain or lay them on clean, soft towels.

Strawberries before removing the hull, raspberries and similar fruits, should be put in a colander, a few at a time; then plunge the colander in a pan of cold water, and rinse quickly with the hands. Lift the colander, drain thoroughly and spread the berries for a moment on a

towel to absorb the moisture. If ripe no sugar is required in serving.

COOKING FRUITS.

Thoroughly wash as above all small fruits, and put at once into the sauce pan, with water to barely cover them. Cover closely and cook slowly until just done, preserving their form if possible. When done turn carefully into an earthen dish, cover closely with a plate, to prevent the escape of aroma or absorption of impurities, and stand in a cool place. Serve cold, and very little if any sugar will be required.

Stewed Apples. Wash, wipe, pare and quarter or slice sub-acid apples; and put in a sauce kettle with just water enough to cover them. If you wish them rich and amber colored simmer very slowly from one to two hours or more, and do not crush the fruit. When partially cool, turn out carefully into a china or glass fruit dish, cover closely with a plate, and set in cool place. Do not sweeten, but allow each one to suit individual taste, as many prefer fruits without sugar.

Sweet Apples may be prepared and cooked in the above manner, with the addition of more water, and more time to cook. The juice of a half or whole lemon makes an agreeable addition to sweet apples.

Boiled Apples. Select rosy, sub-acid apples. Wash, remove the blossom end, and all imperfections. Put them in a sauce kettle with cold water to nearly cover. Cover the kettle closely, and when those at the bottom are done, remove carefully with a spoon, and when all are done, take them out, and if too much liquor remains, boil it down, and then pour it over the fruit; cover and set in

a cool place. Sweet apples may be cooked in the same way.

Steamed Apples. Prepare either sweet or tart apples as in the preceding recipe, and fill an earthen plate or dish. Steam until soft, and serve cold with the juice.

Baked Apples. Select sound, tart apples, and prepare them as for boiling. Put them in a deep earthen or granite ware dish with a small cup of water, and bake slowly, adding more water if necessary. When done, let them stand and partially cool, then remove to a fruit dish and serve cold.

Baked Sweet Apples. Take sweet apples of uniform size, wash and remove blossom end and all imperfections. Put them in a granite pan, or plates, with water to cover one-fourth of the apple; bake slowly two or three hours, turn them over if necessary, and do not let them scorch.

Barbecued Apples. The following recipe came as a clipping. The writer has not tested it, and the name seems quite out of the line of fruit cookery, but it must stand on its own merit.

“Pare and core six large apples; arrange in a deep dish and fill cavities with sugar and cinnamon. Now make a sauce by mixing smooth two tablespoons of flour and one of butter, and filling up the cup with *boiling* water; pour this over the apples and bake until tender.”

Stuffed Apples. Prepare apples for baking by removing the cores. Fill with seeded and chopped raisins, dates or figs. Bake slowly in pudding dish, with a cup of water poured round them. Do not scorch them, and be careful to take them from the oven before they lose

their shape. If baked without the skin, they do this sooner than if baked with the skin on.

Apples with Raisins. Wash two cups of raisins. Stew them slowly an hour in one quart of water, or steam them, which is better, but takes a little longer. When done, add them to a quart of steamed or stewed tart apples and serve cold.

Baked Quince. See that the fruit is perfect in every way, and then wash, dry and bake it, and the flavor is unique and delicious.

Baked in a Jar. Any fruit such as apples, peaches, etc., are nice baked in an earthen jar *with a cover on*, and kept in a slow oven three or four hours. The flavor differs essentially from that of ordinary baked fruit, as also the color. Apples and pears should not be soft, and may be cooked whole without paring. Core the apples. Remove skins and pits from peaches. Pare, core and quarter quinces, and use two parts sweet fruits to one of quince.

Cranberries. Pick over and wash a quart of the berries, put them in the sauce pan with about a pint of water, simmer until done, put them through a wire strainer to remove the skins, and sweeten with a small cup of sugar. Cranberries may be sweetened with raisins or dates. They may be kept fresh in stone or glass jars with cold water to cover them, and set in a cool place, protected from the air and dust.

Stewed Rhubarb. Wash the stalks, cut into inch pieces, without peeling. To remove a portion of the acid cover with boiling water and stand on the stove until it changes its color. Drain and put in a sauce pan without

water, with one cup of sugar to one quart of rhubarb. Cook slowly until soft, but do not destroy its form. When done turn out in a fruit dish and serve cold. Cooked raisins, figs or dates, in about equal parts, will sweeten rhubarb without sugar, and so prepared, gives variety. Have sufficient juice in the sweet fruits to make the proper amount, and arrange in a fruit dish in alternate layers. Rhubarb may also be baked in a pudding dish with alternate layers of figs, dates or raisins. Barely cover with cold water, and bake slowly one hour.

Baked Bananas. Split the fruit lengthwise with a pointed knife, lift the halves out of the skins and strip off the pith-like coating, restore the skins, sprinkle with a trifle of sugar, and bake in a moderate oven twenty minutes. Serve with the following sauce.

Orange Sauce. Mix a teaspoonful of corn starch with two tablespoonfuls of sugar. Press the juice from three good sized oranges and heat. When hot add corn starch and sugar, and cook till clear. This sauce can be made while the fruit is baking.

Appetizing and artistic dishes may be easily prepared with sweet and sour fruits in alternate layers, or chopped fine, and carefully blended before serving.

The ingenious cook who has numerous calls for frequent modifications in simple desserts, will be able to make them of rice, sago, tapioca and cereals, granula, or bread crumbs steeped a few moments in hot water, may also be used.

Sago, Rice and Tapioca, should be well washed, and steamed or cooked in a double boiler until tender and clear, in the proportion of one cup of either to about three to five cups of cold water. They may then be combined

with various kinds of fruit, fresh or dried ; arranged in layers in a mold or cups, after cooking, and served warm or cold, with fruit juice or crushed fruit.

Cover all soft cooked foods to prevent escape of the aroma and absorption of impurities.

Do not spice or salt fruits, nor deteriorate their quality with commercial flavoring extracts ; but if desired, flavor one kind with some other.

All ripe fruit is best eaten uncooked. Steaming fruits is preferable to any other method of cooking, being more economical, less work, and the flavors and juices are retained.

CANNED FRUITS.

Select good fruit, and not over ripe for canning, and wash or rinse it in clean water. See that cans, rubbers and covers are clean and perfect. Cracked, stiff rubbers, and bent, unclean covers are often the cause of spoiled fruit.

Do not sweeten before canning as it retains color and flavor better without, and keeps just as well.

When ready to can fruit, put the covers in a basin of boiling water to sterilize them. Fill the cans a third full of water warm enough to thoroughly heat them, ten minutes before filling with hot fruit.

To Can Strawberries. Wash carefully, a few at a time, before hulling them. Allow three quarts of berries for two one-quart cans. Put them in a porcelain or granite ware kettle, with about a pint of cold water. Bring them to a boil, move them carefully with a wooden spoon, that all may be heated through, and cook them but slightly. Empty the warm water from the cans, adjust the rubber and fruit funnel, and carefully fill the cans ; when

half full shake the fruit down, then fill to the top; remove the funnel, insert the handle of a silver spoon down the side of the can to assist the air bubbles in escaping; add a little more juice if necessary, or boiling water; stroke the air bubbles from the top, and screw on the cover. Invert the cans and if they do not leak, wipe with a damp towel, and set them away inverted to cool. When cool, screw the top down tightly, and set in a cool, dark place. Watch them a few days; open and use any that show signs of fermentation.

Raspberries are canned in the same way, although some varieties require a little more water.

Blackberries should be cooked about five minutes.

Blue and Huckleberries require ten minutes cooking, and more water than the juicy berries.

Cherries should slowly cook twenty minutes, and may be stoned or not as one prefers. The tougher varieties require more cooking.

Peaches. Wash them, drop into a kettle of boiling water a moment to loosen the skins; take them out with a skimmer unless you have a wire basket, which is more convenient. Cut in halves, remove the pits and skins; if very large, cut them in quarters. Slowly cook them in a little water until soft and can boiling hot.

Pears. Wash, pare and halve, or quarter them, if very large. Cook until tender and can as above. Small pears may be cooked whole and unpared, to a rich color and then canned. The Seckel pear is the richest and best of all varieties for canning.

Tomatoes. Select ripe, solid varieties for canning. Drop them in boiling water for a moment, or until the

skin begins to crack ; remove from the water, peel, and cut out the hard portions about the stem. Slice them into a fruit kettle and stew fifteen minutes or more, and can boiling hot, the same as other fruit, and unless one is very careless in sealing, not a can will be lost by fermentation.

All other fruit may be canned in the same manner. Be sure and set all canned fruits bottom upwards until cold, then screw the tops tightly and store them in a cool, dark place.

Pineapple. Select thoroughly ripe "pines," and with a sharp knife slice off the outside, retaining the *leaves* as a handle to hold the fruit. Then with your strawberry huller take out the eyes, and holding the fruit by the leaves in one hand, with the other shred off the pulp with a silver fork. Turn the pine so the fork will strike it in every direction, and the pulp will fall in flakes into the dish, a plentiful supply of juice following. By this method the hard core of the pine is left in your hand, and only the pulp is used as food. By cooking till it is thoroughly sterilized this will keep without sugar or water. Cook fifteen minutes.

If cans do not readily open when needed, invert them in a basin of very warm water for a little while.

Many people prefer to can their fruit by steaming it. The "Mudge Fruit Cannery" has proved such a success for this purpose the wash boiler process seems a tedious operation, and will doubtless give place to this modern and scientific method of canning fruit and vegetables. In place of this, a steamer kettle or steam cooker may be used. Wash and prepare the fruit as for stewing, and fill the cans full of the raw fruit, shaking it down a little. Set them in a basin of warm water to warm the cans, then slowly

fill them with *boiling water*. Have the water in the steamer boiling constantly ; set the cans in and cover. Steam them from ten to fifteen minutes, less time for the smallest fruits, remove and finish as with the stewed fruit. Do not put the rubbers and covers on until you take the fruit from the steamer, and be sure they are clean, perfect and sterilized, by standing half an hour in boiling water to destroy the "germs" that will otherwise spoil the fruit.

Peaches and pears should steam twenty minutes.

FRUITS PRESERVED BY COLD STORAGE.

Immense cold storage buildings containing the choicest meats, fowl, fish and game of all descriptions, make it possible for the flesh consumer to obtain at any season of the year all the animal delicacies his palate may demand. If entirely "out of season," he will find it "in season" in cold storage.

Warehouses are being erected and co-operative associations formed among farmers and market men for the more lengthy preservation of fruits and vegetables. .

Cold storage being years ago pronounced a success, there is reason to anticipate that we may have vegetables, fruits and nuts so preserved, not only in large storage houses, but the utility, economy and convenience of a "cold storage" room in every house will suggest itself to the intelligence of thrifty householders. This would obviate the necessity of so much canning, drying and preserving as is now done.

Nuts are our natural meat and there is no reason why they may not be kept sweet and fresh by the same process and thus avoid mixing the remnants of last year's crop with the new as is often done.

DRIED FRUITS.

Avoid fruits treated with sulphur, salicylic acid and other deleterious substances.

Mr. Henri V. Lememager of Tacoma, Wash. writes to the editor of the English *Herald of Health*, that "peaches, apricots, apples and pears will turn a healthy brown color if dried in the natural way; but when sulphured will be paler, brighter and more attractive in the eyes of those who buy for appearances. The flavor, however, of sulphured fruit is *non est*. There is no flavor whatever or very little. Sulphured peaches, apples and apricots are very acid. It is anything but beneficial from a hygienic point of view, as sulphuric acid and zinc are not particularly desirable in combination, and the lack of flavor in the fruit shows there is something wrong."

Director Heilgard, of the California Station, believes that the public should be taught to prefer "healthy, brown, high flavored fruit, to the sickly-tinted, chemically-tainted product of the sulphur box."

"When freshly sliced fruit is treated with sulphurous acid for a short time the effects are slight, yet such as to protect the fruit from insects. When thoroughly sulphured after drying, however, the fruit is injured in flavor; and worse still, sulphuric acid is formed in sufficient amount to be injurious to health. By analysis sulphured apricots have been found to contain 2.32 per cent. of sulphuric acid or about 25 grains of oil of vitriol per pound and prunes 3.46 per cent. of sulphuric acid. In most countries of Europe the sale of sulphured fruit is forbidden." Why need we eat poisoned fruits when our government appropriates millions for the investigation and suppression of fraudulent foods? Simply because they look nice and we do not investigate.

Purchase good fruit, not necessarily the most expensive, although it may present a more attractive appearance put up in fancy boxes.

Very carefully look over and wash in several waters all dried fruits previous to using.

DATES.

Carefully separate, wash and rinse with the hands a few at a time; drain or dry on a soft towel. Serve them uncooked or steamed a few minutes with or without the addition of water. They are also very nice stewed in an equal quantity of water, with a few thin slices of lemon, or baked ten minutes on an earthen plate.

FIGS.

Figs that come in bulk sometimes called "pulled figs" are often superior to those in boxes. Wash each one separately in warm water, rinse well and dry, if to be served without cooking. To cook, steam or stew like dates, or soak them over night in a little cold water and they will be plump and tender; they may be baked ten minutes.

RAISINS.

Raisins have been considered a table luxury to be indulged in by the few who could afford them. Recently they have been pronounced a very desirable nutritious food. The fresh grape is almost a perfect food; when dried it becomes a concentration of rich nutriment, furnishing not only food but a pure sugar that may be utilized in many ways with acid fruits and in various forms of cookery. Like the sugar of the date and the fig, it is more healthy than cane sugar.

To Cook Raisins. Wash in two or three waters. Pour boiling water over them and let them soak a few minutes. Drain and seed. A raisin seeder will seed without waste a pound of raisins in a few minutes; wash but do not scald them for the seeder.

To a pound of raisins add four cups of cold water and let them soak over night; then place them on the range in the water they have soaked in, adding more if necessary, and allow them to heat very slowly. Keep closely covered and cook until tender, but do not allow them to boil if the skins will become tender without. After soaking over night, they may be steamed until tender. A few slices or the juice of a lemon gives a desirable flavor.

Seedless Raisins. Wash and soak them over night and cook as in the preceding recipe.

Sultanas and Currants. Look them over very carefully, as bits of flint and stone are often found in them. Separate and wash thoroughly in tepid water, rubbing them with the hands. Then wash and rinse through a colander until perfectly clean.

Put in a sauce pan and add double the quantity of cold water. Let them heat and swell very slowly, barely simmering an hour or more, or until tender. Have plenty of juice when done, and if too sweet the juice of a lemon or a few sour currants cooked with them will be an improvement.

Prunes. Look them over carefully, put them in warm water a few minutes, then rub them thoroughly with the hands, and rinse in two waters. Put them in a sauce kettle with sufficient cold water to have plenty of liquid when done, adding more if necessary. Let them soak several hours, or over night, and cook in the same water

by steaming or swelling on the back of the range until plump and tender. Do not crush them, and serve cold. The sweet varieties are the best and require no sugar.

Prunes are exceedingly valuable as food and should be freely used, especially in winter and spring, with their sweeter companions, which naturally give precedence in summer to the more cooling substance found in the juice of sweet and sub-acid fruits.

APRICOTS AND PEACHES.

Look them over, remove all blemishes and imperfect pieces. Wash and rub them with the hands in warm water. Rinse until clean. To a quart of fruit add sufficient water to stand an inch in depth above the fruit and soak over night. Add more water if necessary, and cook the same as prunes, without boiling.

Apples, berries, and all fruits if dried when ripe, and of good quality, are almost like fresh fruit, if soaked several hours to slowly absorb water lost by evaporation in drying, and cooked in the same water, by steeping or swelling on the back of the range until soft. Have plenty of juice, keep them covered, and if not sweet enough, add dates, raisins, or a little sugar.

FRUIT JUICES.

When housekeepers become aware of the full value of *fruit* juices as seasonings, sauces and drinks these will become quite as popular as canned fruits. All the small fruits are well adapted for each of these uses. They should be crushed, strained and the juice diluted as may be found necessary when used as either of these. Such fruit juices as are on the market may be as claimed on the label, but there is always a possibility of dishonest dealers putting out combinations of chemicals which are:

palatable but not healthful. Therefore it is well for housekeepers to make their own fruit juices when practicable, and their use is strongly recommended. The juice of oranges and pineapples make fine drinks as well as the better known lemon-juice. Grape juice which is quite different from the fermented article stands unrivalled as a beverage, and is already sold at many soda fountains.

Medicinal Values. The raspberry and blackberry have long been recognized for their medicinal properties in "summer complaints." Huckleberry juice is considered excellent in fevers. A Russian physician suggests the juice of raw cranberries, diluted as needed, for a drink in cases of typhoid fever. An English doctor is reported as saying if all his patients ate the juice of two oranges before breakfast, he should soon starve.

Lemon and lime juice, used plentifully, is said to be a reliable remedy in diphtheria, and southern negroes long since learned to rely on the juice of the pineapple for the cure of the same dread disease. For this purpose, the juice can be readily obtained by putting shredded pineapple through the ricer, or twisting it in a strong cloth. One physician has made public the statement that he successfully uses warm lemonade, with gum arabic dissolved in it for scarlet fever. The anti-scorbutic properties of lemons are well understood. It is now asserted that their juice will cure warts and remove dandruff, and Drs. Rees and Babington of London, years ago introduced lemon-juice as a remedy for gout. If half that is said of the remedial value of the apple is true nature has done well to make it so plentiful and wide spread. It has been said of it,

"It is an excellent brain food, because it contains more

phosphoric acid in easily digestible form than any other fruit known. It excites the action of the liver, promotes sound and healthy sleep, and thoroughly disinfects the mouth. This is not all. The apple agglutinates the surplus acids of the stomach, helps the kidney secretions, and prevents calculus growths, while it obviates indigestion and is one of the best preventatives known of diseases of the throat."

In this connection it is well to suggest to those who think they "can't eat fruit;" that the digestive organs, having for a long time been accustomed to other food have adjusted themselves to that, and the fact that they do not immediately take kindly to a new diet, is no argument against its being a better or more natural diet. Had they—the organs—been accustomed from childhood to a fruit diet, there would have been equal rebellion at a change therefrom to your present food. Moreover, few people refuse to accustom their systems to the effects of arsenic, mercury, morphine or brandy, when the physician considers it necessary, notwithstanding the fact that their stomachs have not hitherto been used to the action of those articles. Later ills are calmly asserted to be "only the effects of the medicine," and equally if some unpleasant results are experienced from a beneficial change of diet, why may the remedial diet not be continued and any present discomfort be simply assigned to "the effects of the medicine."

The Grape Cure has become very popular in some countries where it is claimed that the free use of this fruit will cure certain classes of disease and in our own country if grapes were made into unfermented wine and used more freely as food and drink, unquestionably there would

be a decrease in the use of the products of the distillery and an increase of better health and morals. Happily for us, the unfermented grape juice industry has already assumed respectable proportions, and this "bottled sunshine" is rapidly taking the place of alcoholic stimulants in the practice of physicians. Dr. John Ellis says: "It is a healthy life giving fluid, abundantly capable of nourishing the body, and making warm and glad the heart of man."

For many years the author has used grape juice of home canning, and found it an excellent tonic as well as food. It is however to be had in market and as large companies have greater facilities for canning without water it becomes the concentrated, unfermented wine of the living grape, a perfect food or drink.

The following recipes are for obtaining the fruit juices, when one does not own a fruit press.

Grape Juice Canned. Select ripe grapes of the best varieties. Thus far, the Concord has yielded the best results. Stem and wash them, put in a sauce kettle with very little water; heat them to extract the juice and strain through cheese cloth, or jelly bag. Return to kettle, heat, skim and can boiling hot, or bottle as in the following recipe.

Small Fruit Juices. Wash and crush the fruit, add a little water and bring to the boiling point. Strain through a thin cloth or jelly bag. Return to sauce kettle, let it come to a boil, skim, and can boiling hot. Or you may put it in small bottles, with solid, well fitting, new corks. Fill the bottles completely with the boiling juice, cork tightly, and cover the cork with cotton batting or three or four thicknesses of white wadding, which should be tied

closely with a cord around the neck of the bottle. Can without sugar and use very little water in fruit juice, for it may be reduced as much as necessary when opened.

Orange and Lemon Juice Canned. Purchase them in quantity when cheap. Remove skins and seeds, rejecting also the white skin which is bitter. Put in sauce kettle, heat to extract the juice, strain and treat as other fruit juice, without sugar.

Fruit Juice Sauce. Use any kind of fruit possessing a distinctive flavor, raspberry, strawberry, grape, cherry, etc. To one pint of boiling juice add one rounding table-spoonful of corn starch made smooth with a little cold juice. Dip a few spoonfuls of the hot juice on the starch mixture, and stir all the lumps out, then add to the hot juice stirring at the same time. Cook five minutes; if too thick add hot water to make it creamy. A little sugar may be used, but do not destroy the flavor of the berry with it.

Entire wheat flour can be used if preferred, and the sauce varied by using any of the different kinds of fruit juices one may have on hand.

Drinks for the Sick. Fruit juices are particularly useful and helpful as drinks for the sick. In preparing them any known taste of the invalid should be recognized, and small quantities offered at a time. Use dainty wine-glasses, or the pretty glass lemonade mugs, though the latter must not be full; and serve on a napkin covered tray.

Thirst vs. Water. The heading, Drinks for the Sick, is intended as a reminder that well people do not need "drinks" very often. A stomach supplied with proper

food in proper quantities will rarely demand drink, even on a hot day, but to meet the call of *unhealthy* stomachs for ice water, it is suggested that they take instead the following.

Good for a Hot Day. The thirst that demands drink almost constantly, can be better and more safely quenched by taking two heaping table-spoonfuls of fine oat meal to a quart of water, stir well and set the pitcher in the refrigerator. As it cools and settles the water is slightly colored, and later may resemble milk. This quenches thirst *better* than clear water, and is less harmful than ice water.

CHAPTER IX.

VEGETABLES.

Vegetables should be grown in good soil, be perfectly fresh, and of the best quality. As all food partakes of the nature of the soil in which it matures, the utmost care should be exercised in furnishing the best quality of pure fertilizers. Vegetables matured beneath the soil more readily become diseased and are not as wholesome as those ripened in the sun. To prepare for cooking they should be thoroughly washed with a brush, imperfections removed and, as a rule, not stand in water previous to cooking. Being rather coarse in their nature, they should be eaten sparingly by invalids or those with weak digestive powers.

To cook evenly they should be of uniform size, and may be boiled, stewed, baked or steamed. Steaming is recommended as in boiling much of the flavor is lost in the steam which escapes, or is left in the water which is thrown away. If care is used to have as little water as possible and the vegetables have been sufficiently washed and pared before cooking, this water can often be used as a sauce for their serving.

In boiling vegetables use as little water as possible; replenish with boiling water if necessary. When done, drain, and leave them on the back of the range partially

uncovered, or take them up the moment they are done, and set in the warming oven until wanted.

Vegetables for stewing should be pared very lightly, as a large part of the nutriment lies just beneath the skin; slice them a quarter of an inch thick, drop in sufficient boiling water to cover, cook until soft and the water nearly or quite evaporated.

Steaming vegetables is the best method, the most economical and labor saving. When the water in the steamer boils, put the vegetables in dry, and cook until a fork will penetrate them. An entire meal can be cooked, including the dessert, at the same time, the flavor and juices of each article being retained, instead of permeating the house with undesirable odors. Food may be kept warm for several hours in a steam cooker.

Vegetables when cold may be finely chopped for hash, or if warmed, mashed and seasoned can be dropped from a spoon in small cakes and baked. They can also be used for soup, purée, salad or stew, with suitable seasonings.

Lemons a substitute for Salt. Lemons are an excellent substitute for salt and are much used by non-salt eaters. Thoroughly wash them, cut in thin slices and carefully remove every seed. They may be thus used for cooking in soups and stews, baked beans, etc. Should the peel prove objectionable use the lemon without it. Nothing excels lemon juice clear or diluted with oil or water as a vegetable dressing.

Onions. There is a diversity of opinion among hygienists regarding the wholesomeness of onions, owing to their peculiar flavor, and pungent qualities. Like many other articles used as food, the onion possesses valuable

medicinal properties and if properly cultivated and cooked should be as harmless as other vegetables. A very small quantity of onion juice, or bits of sliced onion make a delicate flavor for many dishes.

To Boil Onions. Peel and slice one-fourth of an inch thick, pour boiling water over them and simmer five minutes, drain, and if strongly flavored repeat the process, then boil in as little water as possible one-half hour, or until done.

To Boil Carrots. Wash and scrape them with a knife to remove the skin. Boil in as little water as possible an hour and a half or more. If very large cut them lengthwise; if too strongly flavored boil ten minutes, drain, and add boiling water and cook until tender.

Shredded Carrots. Cut the carrots in strips about two inches long one quarter wide and one-eighth thick. Put in kettle with water enough to show, but not to cover, being always careful not to let the water boil entirely away. Just before it is taken up, add a table-spoonful of cocoanut butter or butter oil, rubbed into a teaspoonful of flour or corn starch, together with a table-spoonful of chopped parsley. Serve with a border of parsley.

To Boil Beets. Wash them thoroughly, but do not break the skin; leave the tops an inch long. Drop them in boiling water and cook an hour or more, depending upon age and size. When done, dip in cold water and remove the skins. Slice, arrange neatly on a platter, and serve with lemon juice, diluted to taste. Beets are sweeter steamed than boiled.

To Cook Salsify or Vegetable Oyster. Wash and scrape them, slice one-fourth of an inch thick, steam, or stew in a very little water. Serve with white sauce.

To Boil Parsnips. Wash thoroughly, pare them and if very large cut them lengthwise and boil half an hour or until tender. Serve in slices plain, or dressed with vegetable butter. Or slice them, spread with butter, lay them on a plate with a little of the juice that may be in the sauce pan, and set in the oven a few minutes before serving.

To Boil Turnips. Wash and pare them, and if large cut them. Boil until done. Drain and mash them, season with cocoanut butter. Parsnips and turnips are very good mashed with an equal quantity of potato and seasoned with butter.

Spinach. Spinach requires great care in looking over and should not be thought clean until it has been washed in five or six waters. If you use an Aladdin oven it can then be laid without water in a baking pan and cooked in its own juices.

Mrs. Lincoln's Way of Cooking Spinach. Put in the bottom of the kettle a table-spoonful of butter, two or three gratings of nutmeg, one-half teaspoonful salt, the same of pepper. Put in the spinach and let stand ten minutes or more on cool part of stove, then cook.

Another Way. Omit the spices, and substitute cocoanut butter for dairy butter, otherwise cook as in the preceding recipe. The easier way would be to lay it on a perforated pie plate and set in the steamer and cook a half hour, or until tender, then take it out into a warm dish, cut with a knife and season with vegetable butter. Serve with diluted lemon juice.

To Cook Dandelions. The cultivated dandelion is a great favorite, being more delicate than the wild variety.

Look over carefully and wash in several waters. If very old, pour boiling water over and let them stand on the stove ten minutes, drain, and steam like spinach, or boil in as little water as possible two hours or until done. A large handful of cultivated sorrel is said to give an excellent flavor to dandelion or any other greens when cooked with them. When done drain them in a colander, cut with a knife, season and serve the same as spinach. Beet tops, mustard leaves, dock, milkweed, cowslips or anything used for "greens" should be fresh, very carefully looked over, and washed in several waters. Cook and serve as in the preceding recipe.

Beans. Beans are of many varieties, of which the Limas are the richest.

To Boil Green Beans. Select beans that are fully grown, shell and wash them and boil in as little water as possible one hour or more. Season with a half cup grated cocoanut to one quart of beans, or one or two table-spoonfuls cocoanut butter, according to richness desired.

To Boil String Beans. The wax or butter bean is the richest in quality and flavor. Cut off the ends of the pods, then break or cut upon a board into inch pieces. Wash in two waters and boil, having but little water when done. Cook from two to three hours.

To Boil Green Peas. Shell and rinse them through a colander. Boil in as little water as possible, a half hour or more according to variety and size. But a much better way is to steam them and they are then cooked in their own juices.

To Cook Green Peas and Carrots. Wash, scrape and cut into dice one carrot and boil it. Add to the peas when nearly done. Season and serve.

To Cook Cauliflower. Select a nice, white head, cut out the hard stem and green leaves, and put in cold salt water for half an hour to free it from insects; then wash, look it over very carefully, rinse and cook by steam if possible. Serve with white sauce or lemon juice and vegetable oil.

To Stew Cabbage. Prepare as above, shred or cut in small pieces, drop in just enough boiling water to cover, and set back on the stove to simmer, tightly covered until tender. Serve like cauliflower.

To escape the odor of vegetables when cooking in water, let them come to a boil, then set the kettle back on the range where it is sufficiently hot to cook them without boiling.

To Boil Corn. Husk and remove the silk; put in a kettle of cold water to just cover, let it come to a boil and cook three minutes.

To Steam Corn. Have the water in steamer boiling rapidly; husk and lay the ears of corn loosely in the steamer and cook five minutes. Corn should be cooked just long enough to set the milk; it is then rich, juicy and tender; after a certain point is reached the hull becomes tough and the kernel hard. It is best eaten from the cob. Score the corn with a knife and most of the hulls will be left on the cob.

To Stew Corn. Score the corn with a sharp knife, cut from the cob about half way through the corn, press the remainder out with the back of the knife and stew in a very little water, three minutes. Season and serve.

Breakfast Dish. Toast as many slices of stale bread, gems, or rolls as you wish. Prepare some corn as in the

preceding recipe, having it more juicy, season with cocoanut butter and serve on the slices of toast.

To Cook Succotash. Lima beans are the best for succotash. Shell, wash and boil them until done, having them a little juicy, but not mushy. Cut the corn from the cob in small pieces, press all the juice out and add to the beans; season and cook five minutes. Use equal parts beans and corn, or a larger proportion of corn if preferred.

The Potato. This esculent held in such high favor, seems in danger of losing its prestige, if we believe the latest statements concerning it. Several years ago apples were suggested in place of potatoes and rice has been often mentioned as preferable; although like the potato nearly all starch, it is much more easily digested. The potato is said to induce dyspepsia, gout and rheumatism. However this may be, it has been proven that persons afflicted with these diseases, suffer less after discarding potato. Dr. Cyrus Edson ex-President of the New York Board of Health says:

“The potato being largely composed of starch instead of undergoing the chemico-vital changes of digestion, decomposes, evolving noxious gases, which distend the stomach and intestines. The lack of porosity of the potato substance is another factor that increases its indigestibility. It is precisely like a heavy bread and can only be acted on slowly from the outside. The practice of feeding potatoes to infants and young children cannot be too severely condemned.”

The story has been handed down from the early days of the potato, that a certain farmer put thirty bushels in his cellar for winter use. His “hired men” rebelled and threatened to leave him if he expected them “to eat

all those potatoes." From the antiquity of this story it is evident the "hired men" had not read Dr. Edson's statement, and their "strike" was grounded on an antipathy to an unknown and novel food with little prescience of its present universality.

To Boil Potatoes. If very old pare thinly and let them stand in cold water an hour, then drop them in boiling water to barely cover, drain as soon as done, shake them, partially cover and let them stand a few minutes before serving. Boil new and sound potatoes in their jackets, as above, and peel just before serving; but they are much nicer when steamed.

Mashed Potatoes. Cook as above, crush, season with cocoanut butter, and pass through the vegetable ricer on a platter or serving dish allowing it to remain without pressing down. If there is time, set in a hot oven a few minutes to brown before serving.

To Bake Potatoes. Select the best and of uniform size, scrub thoroughly, wipe dry and bake in a moderate oven. When done prick in two or three places to let out the steam; serve at once as they become soggy by standing.

Stuffed Potatoes. This is a popular dish and if made with vegetable butter is unobjectionable. Bake the potatoes. When done split in halves lengthwise being careful not to break the skin and scrape out the inside. Season deftly and quickly with nut butter in somewhat less quantity than is usual with dairy butter. Salt *if you must*, fill the halves of skin, set back on the oven grate to brown slightly and serve with a plentiful garnish of parsley.

To Cook Sweet Potatoes. The best possible way of cooking these is to roast them in hot ashes, next to that

is the "dutch oven," but as neither of these are available in modern kitchens, there remains only to do

The Next Best Thing. To bake sweet potatoes be sure that the outside is clean enough to be eaten if desired; then lay on the oven grate and bake quickly. No definite time can be given as they vary so in size but select those of the same size.

Steamed or Boiled. Cooked in this way care must be taken that they are not *over* done and after removing the skins, they should be laid on a tin and set for four minutes in a quick oven.

Baked Beans. Many people cannot eat baked beans. Doubtless this is owing to insufficient cooking, the pork they contain and the skins. If thoroughly cooked and seasoned or unseasoned as in the following recipes they will prove as harmless as other vegetables.

To Bake Beans With Lemon. Pick over and wash a quart of nice white beans. Soak them over night in two quarts of cold water. In the morning drain and put them in a kettle, covering two inches deep with cold water, and cook until the skins will crack when exposed to the air in a spoon; pour them in an earthen bean pot, season with one table-spoonful vegetable butter, and one-half a lemon, cut in very thin slices; wash the lemon, and remove the seeds. Add hot water to cover the beans, and put them in the oven, cover with a plate and bake from four to six hours; do not let them burn and have them a little moist when served, if the oven is very hot the water will evaporate too rapidly and more must be added. The addition of slices of lemon, obviates the necessity for salt with those who object to it. If not rich enough add another spoonful of butter.

To Bake Beans With Onions. Wash and soak over night and when put on to boil add a tiny onion. Remove it before baking and season with butter. Another method liked by many is to put a *very small* or button onion in the bottom of the bean pot and bake with the beans. Either way there is a very delicate flavor of onion.

To Bake Beans Plain. Soak a quart of pea beans over night in cold water. In the morning drain, add two quarts of cold water and boil until the skins begin to crack. Pour in an earthen bean pot, and bake as above, without seasoning. Dress them with lemon juice and best salad, or other vegetable oil. Brazil nut meats eaten with beans are an excellent substitute for pork.

To Bake Beans without the Skins. Prepare for cooking as in the preceding recipes and steam or stew them three or four hours. If stewed have them nearly dry when done. Mash and with a spoon press them through a strong wire sieve or colander to remove the skins. The mass should be the consistency of thick mush. Turn it into a bean pot, or pudding dish and bake until sufficiently dry to suit individual taste. Season if you wish with vegetable butter, slices of lemon or salt and some people like a very little sugar in beans. Dressing for this dish : Put a table-spoonful of nut butter in a cup with two table-spoonfuls of cold water. Beat to a cream and add lemon juice to suit the taste, or use diluted lemon juice and serve with English walnut meats. This dressing is an excellent substitute for salt, and seasonings usually cooked in beans. It should be the consistency of thin cream.

To Stew Dry Beans. Prepare as for baking and cook on the back of the range several hours having them

slightly juicy when done. Season and serve with nuts.

To Cook Dried Peas. Prepare and boil or bake the same as beans. Serve with pignolia or pecan nuts.

To Stew Split Peas. Cook in the above manner, but they do not require soaking over night. Unless very old do not change the water.

To Cook Lentils. Wash one pint and soak over night in cold water. In the morning drain and put them in a sauce pan with cold water to cover an inch and slowly cook until done. They may also be baked the same as peas, or beans. Season and serve with Brazil nuts.

Mushrooms. Of these there is a large variety and those acquainted with these varieties assert that there is a never ending supply of cheap and nutritious food right at our doors. But the fact that many kinds are a deadly poison and that the average observer cannot tell the difference will always prove a hinderance to the general use of the wild varieties. Authorities on the selection of mushrooms, are becoming frequent as their dietetic virtues are acknowledged. Among these are "Mushrooms and Toadstools" by Worthington G. Smith; "About Mushrooms" by Julius A. Palmer, and the Prang Lithographic Co. of Boston has published a book on mushrooms with colored plates. There is also a reliable guide in the "Report of the Microscopist for 1892" by Thomas Taylor, M. D., which can be obtained on application to the Agricultural Department at Washington, D. C. No one should attempt to gather and eat wild mushrooms unless they are thoroughly posted on the subject.

"**Mushrooms and How to Grow Them**" by Wm. Falconer, is the most practical work on the subject ever written

and the only book on growing mushrooms published in America and contains numerous recipes for preparing and cooking them.

Melons. Melons should be cold, fresh and not over ripe. Unripe or stale melons eaten warm are often the cause of acute illness.

Watermelons. These should be thoroughly chilled before serving. This done they are best served without additions. If they are good, they need no "fixings" and if not good nothing will make them so. They should be cut first horizontally in halves then the halves cut lengthwise in pieces so that each piece may have a sort of boat shaped rind to hold the water as it drips from the spoon, for they should be eaten with a dessert-spoon notwithstanding the fork fad. Very good for breakfast with bread.

Muskmelons or Cantaloupes. These must be fresh and not over-ripe. Wash and dry them, remove the seeds and chill them. To serve, slice them if large and arrange neatly on a round plate each piece radiating from the center. They are an excellent sauce with gems or rolls for breakfast or the first course at dinner. If small, cut in halves, remove the seeds and lay a lump of ice on each half, or build a little pyramid of shaved ice in the centre of each. The small green-fleshed or salmon-fleshed varieties are the best in quality.

Tomatoes. The smooth solid kinds are superior in flavor to the more juicy varieties. *Never leave in the sun to ripen when picked too soon*, as they decay rapidly. Lay them carefully in a box or basket or on a shelf in a closed cupboard away from light in a cool place. They will soon ripen, even if but faintly tinted with red when put away.

To Bake Tomatoes. Wash and wipe as many ripe tomatoes as you wish to bake, remove the green spots and blemishes, lay them in a granite or earthen ware plate or pan and set in the oven ; bake slowly twenty minutes, if very juicy simmer until the juice thickens a little. When done and partially cool remove to a glass dish, pour the juice over them and serve cold.

To Stew Tomatoes. Fill a wire basket and stand in boiling water one minute or until the tomato skins begin to crack, or drop them in boiling water and remove with a skimmer. Peel and slice into a porcelain or granite ware kettle. Cook without water from fifteen minutes to one hour according to taste. If very juicy add bread crumbs, or serve on slices of toasted bread or rolls. Season with nut butter.

To Cook Tomatoes with Rice. Wash, peel and slice one quart of tomatoes or use a can of the same. Stew until soft, and mash them with the back of a spoon, then add one cup of steamed or boiled rice, stir very carefully and not break the grains ; cook slowly five minutes longer, season with cocoanut butter and serve.

To Cook Tomatoes with Corn. Prepare and cook tomatoes as in the preceding recipe. Have ready three or four ears of fresh sweet corn, cut from the cob in small pieces and scrape off what remains with the back of the knife, add to the tomato and cook five minutes, season and serve.

To Cook Summer Squash. These should be young and tender enough to be cooked whole. Wash them and boil in as little water as possible, thirty-five minutes or until tender. When done put them in a thin cloth bag, or square of cloth kept for that purpose and press the

water out. Season and re-heat and serve hot. If the squashes are too large or too old to boil whole they must be pared, cut and the seeds removed before cooking.

To Cook Winter Squash. The very hard-shelled varieties are the best. Wash and saw them into the sized pieces you wish. Remove all suspicious spots from the skin, and lay them in the steamer, without paring. Steam one-hour or less. When done remove from the skins with a spoon, mash, season and press through the vegetable ricer into the serving dish. This method applies to the best squashes, that are often so dry they require the addition of a little boiling water when mashing. The softer varieties can be seasoned and mashed without the ricer. Squash is also very nice cut in small pieces and baked.

To Cook Asparagus. Wash and with a sharp knife peel off the tough skin from the large stalks. Lay them in the steamer whole or cut them in inch pieces and stew in as little water as possible twenty minutes, or until tender. Season and serve plain, or on slices of toasted bread or rolls with white or nut butter sauce.

SOUPS.

These popular dishes are troublesome to prepare and have little to recommend them even as an introduction to a hearty meal. Fresh fruit taken at the beginning of a meal would serve a better purpose and require less time in preparing. If fruit were served in this way or eaten with the meal there would be less demand for a dessert and there would be no disposition to over-eat. Soups should cook slowly several hours then be strained through a sieve. Such as require "clearing" may be put through cheese cloth or a Japanese soup

strainer. Purées are a thick soup and are a better winter than summer dish.

Legumes. Peas, beans and lentils are more nutritious than other vegetables, and with the cereals, barley, rice, wheat, etc., cracked, crushed or pearly should form the basis of soups and purées.

Bean Soup. Pick over and wash one pint of white beans, soak them in one quart of cold water over night. In the morning drain and add two quarts of cold water, stew slowly three hours then mash through a sieve and return to the kettle. There should be about two quarts of soup which may be thickened with granula or make a smooth paste of a heaping teaspoonful of entire wheat flour or corn starch and cold water, adding a few spoonfuls of the hot soup and carefully stir all the lumps out ; then slowly add it to the soup and cook five minutes. When ready to serve it should be of creamy consistency. Black wax beans, limas or any good bean, may be used in the same way, also dried peas and lentils. Split peas need not soak over night, but may be put on to cook in the morning in cold water ; do not change the water unless the peas are old.

Baked Bean and Tomato Soup. Put one pint of cold baked beans and one pint of sliced or canned tomatoes into a sauce pan with two quarts of cold water and one small onion, cook one hour and strain. Prepare for the table as in the preceding recipe.

Tomatoes and Celery when stewed as vegetables, may be readily converted into sauces for other vegetables, by straining and thickening as for soups ; season with sweet herbs or lemon.

Vegetable Soup. Wash one cup of beans and soak them over night. In the morning drain and stew in two quarts of water two hours, then add one carrot, two parsnips, two small turnips, and a small onion or stick of celery. Wash and slice the vegetables and cook with the beans slowly for one hour or until all are thoroughly done. Then strain and thicken like bean soup if necessary. There should be two quarts of soup. The above combination of vegetables can be varied to suit individual taste and other kinds used with parsley or other sweet herbs to flavor.

Vegetable Stew. Wash two table-spoonfuls of rice or other cereal and cook until nearly done. Pare and slice a combination of vegetables one of sweet flavor among them. Add to the cereal and cook thoroughly. Lay some slices of toasted bread in a deep vegetable dish or upon a platter. With a skimmer put the vegetables upon the toast, season and thicken the gravy as for soup and pour over the vegetables. The above combinations of food should be eaten with crackers, rolls, gems or bread to insure perfect mastication; so eaten they are sufficiently nutritious to form the entire dinner and good digestion would comfortably dispose of them. They may be flavored with mint, celery, onion tomato or lemon, or seasoned with vegetable butter and salt. The ordinary method of seasoning vegetables is boiling them in slightly salted water, then seasoning "with pepper, salt and butter" or cream when done. These additions can be made to any of this vegetable cookery in the ordinary way if desired, but it would be advisable to gradually reduce the quantity in daily use and introduce vegetable butter and oil in place of dairy products.

Nut Meal and Nut Butter are excellent seasoning for some vegetables and nut meats, whole or ground, should be eaten with the dinner in place of meat, thus removing them as a dessert and serving as a staple article of food.

Time Required for Cooking Vegetables. There is such a diversity of opinion regarding time no absolute rules can be set down. Every cook should be a law unto herself for only by experience will she be able to have each article of food ready to serve at the right time. Then if families and guests are not tardy there will be no excuse for inferior and badly served food especially if the cook has good judgment, invention, ingenuity and a "faculty" for her work. Mrs. Harriet Beecher Stowe very aptly designates in "The Minister's Wooing" the quality of the ancient New England housewife, who was also the cook in these words: "to her who has faculty nothing shall be impossible, she is never in a hurry and never behindhand." To this should be added, she should be kindly disposed and in good health that pure and wholesome elements be imparted to the food she manipulates.

CHAPTER X.

NUTS AND THEIR CULTURE.

Generally considered nuts are regarded as a dessert luxury or to be eaten between meals. Their culture as a special article of food has received but little consideration.

Present investigation is developing the fact that they are a valuable constituent of the real "bread of life." What beef and fat are to the flesh eater nuts may be to the non-flesh eater.

They are fat-forming, heat and force producing; are far more nutritious than flesh and animal fats, are always ready for use and cannot be adulterated. The nut growing industry is destined in the near future to assume immense proportions and will be found exceedingly remunerative, as the demand for nuts increases with the awakened intelligence of a progressive people. Nut trees once in bearing are a sure and constant source of revenue; they are long-lived and occupy but little space when compared with that necessary for the sustenance of domestic animals. The culture of nuts is more cleanly and delightful than the laborious work connected with the care of stock and the dairy.

NUT CULTURE.

The culture of nut bearing trees for their fruit in the United States has until recently been confined to narrow

limits. This is due in part to the abundance of wild nuts which in some localities supply the demand. They are grown from seed and also propagated by grafting.

The Almond, a very valuable nut, is largely grown in California. In 1892 the yield was 600,000 pounds, and, according to the report of the Commissioner of Patents, we imported in 1892 6,371,015 pounds, valued at \$995,764. The production did not exceed one-tenth the quantity consumed. They are usually divided into "hard shell," "soft shell" and "paper shell." They are very nutritious and less oily than some other nuts, containing only 53.02. fat. In December, 1895, the net duty on almond meats per pound was seven and a half cents if imported in the shells, against five cents per pound if imported without the shells.

Of Walnuts there are three species having a commercial value in the United States. Of these the black walnut and the butternut are native and one — the Persian — has been introduced from the Old World. The Persian walnut is known here as the English walnut, to distinguish it from the native. It is largely grown in California and the Southwest, and in acreage and value of product it stands next to the almond among American nut crops. It is a native of western, central and probably of eastern Asia, the home of the peach and apricot. For more than a century it has been planted in a small way in the Atlantic states. It can be successfully grown along the Atlantic slope from New York to Georgia, but is not as successful in the Gulf states. It endures the winter in favored locations near the coast as far north as Connecticut, Rhode Island and Massachusetts, but has never been planted there except in a few instances. In Penn-

sylvania this tree is reported "as hardy as the oaks." On the Pacific slope, in California and Oregon, the conditions are more favorable for market walnut growing. In 1891 California shipped by land and sea 1,818,060 pounds of walnuts. The largest cultivated walnut grove in this country, and probably the largest in the world, contains 700 acres.

In France the cheap nuts are sold to the oil mills. One hundred pounds of walnuts will produce about eighteen pounds of oil. It is said that half the vegetable oil used in France is walnut oil, or about three times more than is used of olive oil; a fact worthy of note by those who reject all salad oils except such as are "imported direct from France."

There are two varieties of Japanese walnuts that have been grown in California and other states for several years. The trees make rapid growth, fruit early and attain a great age. The nuts are equal to the English walnut in flavor and they possess great value as a table nut.

The Pecan, which belongs to the hickory nut family, is found native in some parts of the United States, west and southwest. Mr. Robert Ridgeway of the Smithsonian Institution says:

"With the single exception of the white elm the pecan tree has the most widely expanded head of any tree in proportion to its size, while in altitude and majestic appearance the largest and finest elms are no comparison to it. Some trees are 175 feet high with a spread of 100 feet or more. The trunk often measures more than 50 feet and occasionally 80 or 90 to the first limb."

The best pecans come from Louisiana. They are very large and reach the market earlier than those from Texas.

In some parts of Texas pecans are grown with thin shells that may be crushed with the fingers. In 1880 there were marketed in San Antonio, Texas, 1,250,000 pounds of nuts. At Winter Park, Florida, is an orchard of pecans containing 4,000 trees covering 100 acres. The importance of the pecan is scarcely less than that of the English walnut or almond at the present time, and it is probably destined to become the leading nut of the American market.

The industry for preparing the meats for market has already assumed large proportions. It was begun by Mr. Koerber in 1884. In 1887 he prepared 20,000 pounds, and in 1890 more than 100,000 pounds. With a machine constructed for cracking these nuts, pecan meats are coming into general use, and it may be but a short time before nut meats will replace the whole nuts on hotel tables. Three pounds of nuts contain about one pound of meats. The smaller nuts are made into oil, and will make a first-class oil for table use.

The Shagbark, incorrectly called in New England "walnut," is also a hickory nut, already valuable while capable of improvement under cultivation. The kernel is plump and sweet, and readily parts into halves with a stroke of the hammer, or a simple nut cracker. This is one of its most desirable qualities and makes it possible to place this excellent fruit as a "nut meat" upon our tables.

The Hazelnut, or filbert of commerce, called "cobnut" in England, is marketed for dessert purposes, though a pleasant oil resembling olive oil is sometimes expressed from it, and in portions of Europe this, like the chestnut, has been used in limited quantities for making bread.

Thomas Brigden of South Lowell, Ala., says:

"Within ten miles of Maidstone, in Kent, England, there are hundreds of acres of these nuts yielding a heavy profit to the grower. I hope the nut question will be fully ventilated for it is one of the farmer's money crops."

In the State of Washington these nuts are native and flourish as in no other country. Some varieties grow on trees, many of them attaining a height of 50 or 60 feet and five or six inches in diameter.

Chestnuts. As yet but little attention has been paid to the cultivation of our native chestnut, they having afforded an abundant crop without care, growing less, however, of late years.

H. M. Engle of Marietta, Penn., says:

"The great progress in chestnut culture will be by the following method: The hillsides and mountain slopes of chestnut timber will be cut and a proper proportion of the sprouts grafted with choice varieties and the rest of the sprouts and underbrush destroyed. By such method chestnut groves will be established without planting, and by their rapid growth will make bearing trees in a comparatively short time. Four to five years of practical work of this kind justifies me in making such statements, and if I am not mistaken, the boom in chestnut culture will be by such methods."

Prof. William A. Buckhout says:

"Of cultivated plants the nut-producing trees are among the most promising. Nuts have a higher nutritive value generally than have those fruits which are made up of fleshy coverings of the seed, as in the apple, peach, etc. They are rather in the nature of staple articles of diet and approach the grains in food value. They are, moreover, not of the perishable class and are easily handled with little waste and risk."

The European and Japanese chestnuts are larger but

less fine in flavor than the American. Those sold on the street corners in the cities are from Italy and Spain.

Chestnuts vs. Worms. An authority on chestnut culture states that worms in chestnuts may be prevented by pouring boiling water over them as soon as gathered and allowing them to stand fifteen minutes. Stir them to equalize the heat, when those already wormy will float and those remaining will keep sound as the scalding kills all germs and they are softer and nicer than if dried without the scalding. Care must be taken to dry them thoroughly or they will mold.

Pine Nuts. The pine nut has a rich, marrowy kernel in a shell that varies in thickness from that of a chestnut to that of a hard-shelled hazelnut. In form and size different species vary greatly. The several species of pine yielding edible nuts are found on the Pacific slope of the United States and in Colorado, New Mexico, Arizona and Mexico.

These nuts are little known, though they are marketed in large quantities in some of the cities of California. Some of them are of good size and in quality and flavor are so delicate their general introduction will doubtless make them very popular. The pine nuts are generally harvested by Indians, whose method is to heat the cones until they open, when the nuts are easily rattled out, having been roasted in the process. This accounts for the fact that few piñons can be secured in the market in the raw state. Some of the nuts are shipped to the larger markets of the cities on the Pacific coast, but rarely to eastern cities. In the latter they are only used in the manufacture of candy and cakes, hence, inquiry for them at grocers invariably resulted in a negative answer, but at

last they were found at the wholesale store of Daniel S. Dengler in Philadelphia, and later, in Boston, in the confectionery department of Cobb & Aldrich. These nuts were bought under the name of pagnolias. Just on going to press it is learned that in Boston, McLellan & Brigham, wholesale dealers, keep these nuts in stock.

The Indians and Mexicans have learned their value and of the twenty-four species of pine found on the Pacific slope, including Arizona, half of them afford seeds that are used by them as food.

The Cocoanut. The cocoanut was known to the inhabitants of Ceylon 161 B. C., and its milk was then used in the making of cement. The tree grows quite straight to the height of 40 to 50 feet and about one foot in diameter. It is without branches, but has ten or a dozen leaves springing from the top. It grows in nearly all tropical countries and is largely grown in Florida, there being thousands of trees in bearing condition. They will only thrive near the shore, and from the sea nothing can be more picturesque and graceful than the soft yellowish-green leaves of the cocoanut groves as they wave in the wind, many of these leaves being from 10 to 20 feet long and as perfect in every particular as an ostrich plume. Every portion of the tree serves some useful purpose, roots, trunk, leaf, sap and nut being made to yield tribute to man in almost innumerable ways. The small green nuts are grated for medicinal use; the jelly which lines the shell of more mature nuts furnishes a delicate and nutritious food.

Much of the above information concerning nuts and nut culture was gathered from a book entitled "Nut Culture in the United States," published by the Agricultural Department in Washington.

The Brazil Nut, which is often called cream nut, is a native of South America. The trees are very large, rising to the height of 130 feet or more. The nuts are encased in hard shells as large as a child's head, and contain from fifteen to twenty or more nuts or seeds. They are very nutritious and oily, the oil being used for various purposes, and it is also a fine table oil.

Peanuts, like beans, peas and lentils, belong to the legume family. They are a highly valuable food and are made into oil and flour for domestic use. The oil is largely exported to foreign countries and doubtless returns in company with its tropical cousin, cotton-seed oil, under the name of "Pure Olive Oil." New uses will in the near future be made of this most common of all nuts, and renewed attention will be devoted to its extended culture as it is capable of becoming one of the most valuable productions for culinary use.

Virginia raises annually three millions of bushels. Norfolk is the greatest peanut market in the United States and the nuts are of superior quality. The nuts when gathered are taken to the factory, cleaned and sorted by machinery. The cheaper grades are used in making "burnt almonds," peanut candy and the low grade chocolates. It is said that America uses 4,000,000 bushels of peanuts yearly at a cost to the consumers of \$10,000,000. Very rarely do we find these nuts on the table as an article of food, but they are consumed between meals by everybody, from the shoeless and hatless street waif to the gray-haired millionaire.

The limits of this book will not permit the mention of many other valuable nuts.

Unbelievers tell us that a vegetable diet lacks proteids,

or tissue building elements, and hence that vegetarians are not properly nourished. Science has demonstrated that proteids are abundant in the grains, so that non-flesh eaters can be assured of necessary nutrition, but the addition of nuts, with fruits and vegetables, leaves nothing to be desired even by the carper, and on this perfect diet the rising generation can safely depend for a strong foundation, firm muscle, glossy hair, good teeth and fine complexions.

NUTS AS FOOD.

Nuts are not only superior to flesh as an article of diet, but may be used in many forms of cookery, either whole, chopped, grated, crushed or ground into a paste or meal. The softer or very oily nuts may be crushed with a rolling pin on a small board or in a mortar. Dust the rolling pin and board with flour and crush a few at a time. To insure the best results they should be reduced to as fine a paste or meal as possible.

If nuts are purchased already shelled, be sure and give them a very thorough washing and rinsing, and wash all hard-shelled nuts before cracking. Do not wash peanuts, but remove the dust from the shells by putting them in a soft cloth bag and shake or rub them; or put them in a shallow pan and with a brush remove the dust.

There seems to be nothing lacking in nuts to produce the finest results in cooking. Gems, crackers, rolls, biscuit, etc., are made after the recipes given in the chapters on unleavened bread. From one to one and a half or two heaping table-spoonfuls of nut meal being required in each recipe given in place of other shortening.

The pine nut, sold under the name of pignolia, is an excellent nut for cooking. It is very fat, has an agreeable

flavor, equal to cream for shortening and should come into general use.

Nut Loaf. Two teacups of stale bread crumbs, one cup of crushed pecan nuts and two dozen of the whole or broken meats, one level teaspoonful of finely sifted sage or thyme, one-half teaspoonful of salt, if desired. Mix thoroughly with a spoon and add sufficient hot water to moisten all through; let it stand a few moments to absorb the water, then add one cup or more of hot water to make it juicy and bake in a moderate oven one hour. It should be light and a little moist when done. To be served with a vegetable dinner or molded and served cold in slices. Garnish with parsley.

In the place of salt cut six or eight very thin slices of lemon, remove the seeds and mix with the other ingredients.

The nut loaf is capable of great variety. Any kind of nut may be used, but those possessing distinctive flavors are the best, like walnuts, butternuts, pecans and filberts.

Sweet Nut Loaf. Two level teacups granula (stale bread, gems or rolls browned through in the oven and crushed) one teacup of hickory nuts finely crushed or ground, one cup of well washed and seeded raisins, one teaspoonful of any sweet herb desired, a few thin slices of lemon or a little salt. Wash and scrub the lemon thoroughly and remove the seeds.

Add to these ingredients five cups of boiling water and mix evenly with a spoon. Bread and cups vary, and one must use their judgment in all recipes. This loaf should be quite juicy when set in the oven and should be slowly baked until nearly all moisture is absorbed.

Filbert Hash. To one quart of finely chopped cold potatoes add one small cup of hot water and a table-spoonful of vegetable butter (a little salt if you must use it) and one heaping teacup of crushed or ground filberts. Mix thoroughly with a spoon; if not moist enough add hot water, and more butter if not rich enough. Set in the steamer to cook. Or if preferred bake in a moderate oven or cook on the stove in the usual way. The variety of nuts being extensive one can invent scores of new dishes, and if time is too limited to prepare sufficient nuts, use equal parts of nuts and vegetable butter.

Walnut Hash. Make it as in the preceding recipe, but do not add the nuts until the hash is cooked, then stir them in lightly with fork or spoon. If desired for a dinner dish garnish with slices of red beets and serve with lemon juice.

Nut and Fruit Pudding. Slice a half dozen or more stale gems or biscuit, spread them with fine crushed nuts, cover the bottom of a deep pudding dish with a layer of slices, strew over them seeded dates or raisins and a few pine nuts, and so on until the dish is nearly full; the top layer should be of thin slices of bread or biscuit spread with cocoanut butter. Pour in sufficient hot water to moisten it thoroughly and leave a little water in the bottom of the dish. Bake or steam one hour. For variety the juice of an orange may be used with the water, or any desired fruit juice in place of the water. The grated peel of lemon and orange are liked by many as a flavor in these dishes. Bits of lemon are nice with sweet fruit cookery.

Cocoanut, Rice and Raisin Pudding. Wash a cup of rice, grate half a cocoanut and seed a cup of raisins, put

them in a pudding dish and add three cups of cold water, stir evenly together and set in the steamer or a moderate oven. When partially swelled stir very carefully with a fork and add hot water if necessary. Cook one hour at least. When done the rice should be soft, with just moisture enough to serve nicely with fruit juice sauce or crushed strawberries.

Long, slow baking increases the richness and digestibility of puddings or other food, and an unlimited number of new and delightful inventions may be compounded from these healthful materials, if one has time and inclination for such work.

Nut Puree. To one heaping table-spoonful of any kind of nut meal or paste add a little warm water and reduce to a creamy emulsion; then add slowly one-half pint or more of hot water, according to the richness of the nut being used. If thickening is required use flour or corn starch wet into a smooth paste and slowly added to the liquid, which should cook five minutes.

Nut Sauce for Vegetables. Two large table-spoonfuls of pine nut (pegnolia) or Brazil nut made into a cream with warm water, to which add one pint of hot water very slowly, stirring at the same time; now add one-half tea-cup of stewed and strained tomato; let it come to a boil and thicken with a heaping table-spoonful of flour or less of corn starch and cook five minutes. For a change in this sauce omit the tomato and season with a little grated celery, a small thin slice of onion, a few drops of onion juice or a sweet herb. The less salt the better.

Almond and Fruit Sauce. One heaping table-spoonful of almond butter reduced to a fine emulsion with a little hot water, then slowly add one pint of boiling fruit juice.

Thicken with a rounding table-spoonful of poland starch and cook two minutes. It should be rich and creamy and flow readily from a spoon. Serve on cereals, mushes and puddings. If a richer sauce be desired add one-half cup of chopped dates or raisins.

Nut Substitute for Milk. To one-half teacupful of freshly grated cocoanut add one cup of hot water; stir and press with a spoon to remove as much of the juice as possible, then add another cup of water and strain through a fine wire strainer or thin cloth, pressing out the liquid and leaving only the dry fibre. This milk may be eaten hot or cold with bread, toast, gems or crackers. A good supper dish for the children.

Pecans, peanuts, Brazil nuts or any other kind of nuts may be finely crushed and substituted, but will not require straining. This milk, which is free from "germs and bacteria," is recommended in place of the old style bread-and-milk diet, and changes can be made by using sweet apples, pears, peaches or berries with the bread, and still further by substituting berry juice for the water used in preparing the nuts.

Nut Butter. There seems no end to novelties by way of food preparations, and nut butter for table use is one of the latest. It may be used not only on bread, but makes delicious gravies, soups and purées, and is also a fine substitute for milk where bread and milk is desired, and may be reduced to a thin cream for cereals and berries.

SANDWICHES.

With Dates. Wash Fard dates and let them stand till somewhat softened; remove the stones and any bits of

the skin that will come off. Have ready the slices of bread spread with almond nut butter. Over this sprinkle freely crushed pine nuts (pegnolias), lay the dates on face down and cover with buttered slices.

Nut Filling for sandwiches may also be made as follows: Use equal parts of crushed or ground nuts and granula after it has been softened in water; flavor with parsley, chopped very fine, sage or thyme, and salt if desired. Spread the slices of bread with nut butter and lay on the filling rather thickly.

Chestnut Filling can be used in their season. Take off the shells with a sharp-pointed knife and rub off the skins with a stiff brush or a dry crash towel. Boil one pint of nuts with a half teaspoonful of summer savory and a pinch of celery salt in as little water as possible, allowing it to boil almost entirely away at the last, but keep closely covered in the beginning. When the nuts are soft and the water reduced to two spoonfuls remove from the fire, crush the nuts in the kettle and mix thoroughly with the water. When cool add two table-spoonfuls of chopped hickory nuts or pecans and spread on the bread.

Peanut Sandwiches need no recipe, being already so well known and popular, but there is a form of nut butter which flavors so strongly of peanuts that it will make an excellent substitute for dairy butter to spread the bread and hold the crushed nuts in place.

Tomatoes may be used, and with the small unleavened biscuit are particularly nice. Peel the tomatoes by scalding, as usual, using only the solid varieties; cut cross-wise and lay face down on a towel on ice. Select those of the same size as the biscuit to be used, so that when

sliced and enclosed they shall fit and a red ring show all around the biscuit. Dust with powdered sugar and serve.

For a Picnic all sandwiches should be wrapped separately in parafine paper.

Sandwich Fillings may be made of chopped dates, raisins, figs or other dried fruits mixed with equal parts of crushed nuts and creamed nut butter to give the proper consistency.

The Nut Loaf makes an excellent sandwich filling, with small bits of lemon or orange laid on after being spread. Cold baked beans and other vegetables as sandwich fillings will please children who are fond of them. Cut the slices of bread a little thicker than the conventional sandwich.

To Blanch Nuts. Shell and pour hot water over them; let them stand a few minutes, when the tough skins can be easily removed with the hands or a towel.

Those who make use of nuts should purchase them by the quantity, when fresh, and keep them in a cool, dry place. When the demand becomes sufficient we shall doubtless be able to buy every kind of nut already shelled. To preserve their freshness without shells, keep them in covered glass jars or a tin box.

CHAPTER XI.

SALADS.

From ancient literature we learn that "the existence of sallets arose out of hygienic principles." Leeks, onions, garlic and cucumbers were freely eaten by the Egyptians, the usual breakfast being made of bread and onions. Garlic was equally popular with Greeks and Romans, who fed their soldiers with it to excite their courage and their laborers to produce strength for hard work. Nero ate greedily of garlic and onions to improve his voice. Lettuce and endive flavored with minced onions were daily used in Rome, dressed with oil and honey. The following directions for simple and compound sallets are equally ancient.

Simple Sallet. "First then to speak of sallets, there are some simple, some compound, some only to furnish out the table, and some both for use and adoration. Your simple sallets are young onions, washt and cleane and half of the green tops cut cleane away, and so served on a fruit dish, or chives, radish roots, boyled carrets, skirrets and turnips with such like served up simply; also all young lettuce, purslane and divers other herbs which may be served simply with a little verjuice (crab apple vinegar) sallet oyl and sugar, so is camphire, bean-cods, sparagus and cucumbers, with a world of others too tedious to nominate."

Compound Sallet. "Your compound sallets are, first, the young buds, knots of all manner of wholesome herbs

at their first springing, as red sage, mint lettuce, violets marigolds spinage and many other, mixed together and then served up to the table with vinegar, sallet-oyl and sugar."

Then follow profuse recipes for sallets of pickled flowers and dried and fresh fruits and their elaborate arrangement in patterns for the adornment of the table,—excellent "boyled" sallets, the preserving of sallets, sallets for stews only, and the making of strange sallets in which "yellow, *blew* and red flowers retain their colors."

A century later we find salads bore such an important place that John Evelyn of Diary fame, devoted the mental energies of his closing life to the production of "Acetaria, a Discourse of Sallets," dedicated to Lord Chancellor Somers.

Distinguishing between "olera" vegetables for the pot, which should never be eaten raw and "aceteria" those which should never be boiled, he succeeded in impressing on the nation the fact that a true salad must never be cooked.

In fruit salads of the fourteenth century fresh chyryse (cherries) bore a most important place amidst dried dates and figs from the East.

Oil and vinegar with a little sugar for some salads, seems to have been the chief dressing in use. Until the close of the eighteenth century, our ancestors ate salads before the heavier dishes of the table. As "the existence of sallets arose out of hygienic principles," the principles have sadly degenerated and the wholesome salad greens and vegetables are drenched with highly spiced compounds that render the salad heating rather than cooling. In all cases where vinegar is suggested in recipes for salads,

lemon or some other acid fruit juice should be substituted.

Vinegar is the product of fermentation and entirely unfit for use. Pickles and other articles preserved with vinegar, are indigestible and cause much disturbance in the digestive organs. Put a few drops of "good cider vinegar" or any other kind on a small mirror and you may be convinced that lively "vinegar eels" might possibly be capable of doing some harm, whenever they find suitable soil. Dr. J. H. Kellogg says they "often take up their abode in the alimentary canal, becoming intestinal parasites, and producing much mischief."

All herbs and vegetables used in salads should be kept as cold as possible and green leaves should be freshly gathered. Fruit juice, oil and sugar are admissible dressings.

LETTUCE.

It has been said that women should be lettuce-lovers, for its use means not only better complexions but quieter nerves.

As lettuce wilts quickly it should not be put on the table till the last moment, and should never be profaned with a knife. It may be torn if necessary to reduce the size of the leaves.

It makes a dainty and ready garnish and for this purpose it is best to fold the leaf slightly and cut it with scissors. It will then constitute ruffle like strips with which to encircle the contents of a dish.

Sorrel Salad. Sorrel which bears the red blossom is best for this. After carefully washing, etc., cut it lightly with a knife so the leaves may be cut in two or three pieces and mix with an equal quantity of pecan nuts cut rather than chopped. Add to these a very small quantity

of oil and diluted lemon juice, as the body of the salad supplies both oil and acid. Garnish with the lighter colored sorrel.

Spanish Salad. This consists simply of any fresh green that is edible, cleansed thoroughly, then shaken as dry as possible and laid in a bowl which has been rubbed with onion. For dressing, equal parts of lemon juice and water, then add four times the amount of oil and mix well. When obtainable lime or shaddock juice is used.

Nasturtium Salad. Slice cold boiled potatoes and ripe tomatoes in equal quantities, lay in a salad bowl in alternate layers, sprinkling over each a little chopped chives. Around the edge of the bowl lay a border of nasturtium leaves and blossoms allowing the long stems to reach the bottom of the bowl. Be sure no insects remain on the blossoms. Pour over them a dressing of oil and diluted lemon-juice, and set on ice for at least two hours. When ready to serve toss all lightly together.

Nasturtium seeds are often added to other salads as their flavor is marked and gives character to lighter salads.

Cucumber. Select a long slim cucumber and pare it carefully making a groove lengthwise to simulate those often seen in rather green ones. Lay it on a board and slice with a thin knife. Have ready a dish filled with shaved ice, hollowed a little to receive the cucumber. Into this carefully lift it and serve. It should not show that it has been sliced at all, till lifted to small dishes to be dressed with diluted lemon-juice.

CELERY.

In ancient classic days this plant was considered purely medicinal and bore the name of samallage. Cultivation

has changed its biting pungency to sweetness and blanching to crispness. Wash thoroughly, remove all imperfections and imperfect leaves. Arrange the stalks neatly in a celery glass or on a flat glass dish. To be eaten as a relish with vegetables and requires no dressing. Dry the green leaves, sift and keep in a covered glass can, or tin box, for flavoring sauces and soups.

Pink Celery. As celery is usually served "as it grows" a combination of this color with the other is likely to restore the old time tall celery glass. But in the meantime while the shallow celery-holder is still fashionable, the stalks need to be cut rather shorter and should be laid with heads all one way, unless the two colors are used in which case, lay them both ways, each color at one end.

Chopped Celery. If preferred chopped, a dressing must be used of lemon juice with cocoanut or almond oil, or the usual salad oil two parts oil to one of lemon.

Celery and Tomato. Chop or grate the celery using one cup to one quart of fresh or canned tomatoes. Stew or steam the celery in a very little water until nearly done, then add the tomato and cook fifteen or twenty minutes. Thicken with bread crumbs or granula.

Tomatoes. When perfectly ripe wash and wipe them on a clean towel, slice one-fourth of an inch thick and arrange them neatly in a glass dish. They are rich enough without seasoning, but diluted lemon juice or sugar can be used if desired. Do not peel the tomatoes before slicing, if hot water is used, unless there is time to chill them.

Potato and Beet Salad. As a variation from the popular potato salad, mix with them some beets chopped

unevenly, so they may be lightly mixed. Potatoes to be used for salad should not be boiled till mealy, as they will not keep in shape when sliced. Some authorities say slice them and pour the dressing—oil and lemon juice—over them while hot as they absorb it better and then set where the salad will become thoroughly cold. A handsome garnish for this may be made of bunches of barberries, which according to Mrs. Lincoln, can be kept in brine to be in readiness for this purpose.

Fruit Salads. Though these do not differ from conventional modes of serving fruit at breakfast and supper they are frequently served as a salad course at dinners.

Apple Salad. Pare and slice six tart apples very thin, lay in salad bowl and sprinkle over each layer a slight sprinkle of powdered sugar and a few drops of lemon. Let stand several hours and serve very cold.

Sweet Apples. When used as above, require no sugar and may be alternated with slices of Brazil nuts.

Fruit Harlequin. If strawberries are in market a box of these may be used, or raspberries can be substituted. Prepare a pineapple by shredding with a fork; cut up daintily and toss out the seeds of four oranges and slice four bananas. Before slicing the last, with the back of the knife remove the dry layer of the banana which remains on the fruit after the skin has been peeled off. Put these in alternate layers in a fruit dish, with the berries for top layer and squeeze the juice of a lemon over them. Let stand on ice several hours.

Orange Surprise. Prepare the requisite number of orange skins by removing the pulp. This can be done by cutting a round off the bud end of the orange and scoop-

ing it out with a spoon, as it is often eaten at table. Have ready some stoned cherries, black caps (black raspberries) and sugared shredded pineapple. Toss these lightly together and moisten slightly with pomegranate juice, or if this is not at hand some of the orange juice can be utilized. A *red* juice of some kind is however better. Fill the orange rinds. Restore the cut end if desired but it is prettier to set in each a rose bud, or two or three sweet peas in a tiny fringe of smilax, or a rose geranium leaf.

Banana Salad. In all cases where bananas are used, the white stringy substance on the outside which remains when the skin is removed should be taken off. Then slice three bananas, dust lightly with sugar and squeeze over them the juice of one large orange or half a lemon.

Beauty Salad. Have perfect strawberries and dark colored. If large split from stem to point. Cut a banana twice through cross-wise then slice the pieces length-wise, about one-quarter of an inch thick. Lay the pieces on a nearly flat salad plate, a green one if readily found, using the end pieces for the edge, with the points outward. Over these put a layer of strawberries which if they have been cut, must be laid with cut faces down. Above these a layer of banana slices cut cross-wise and finish with a layer of strawberries. Dust each layer lightly with powdered sugar and garnish with a few petals pulled from a fresh rose, dropping them carelessly as if by accident. Have the concave surface up, to most of them and in some lay a small perfect berry. If the strawberries are light, use a dark rose, but if the berries are dark, use a pink or yellow rose.

Vegetarian Dressing. Many conventional recipes which give a dressing for salads called "French dressing" use vinegar with oil. As an improvement on this use lemon juice and oil and as lemons vary in size and acidity no proportions can be given save that in general equal parts will be liked. Those who do not like the flavor of olive oil will find other vegetable oils and nut butter agreeable substitutes.

Mayonnaise without Egg. Prepare one heaping teaspoonful of bromose by dissolving it carefully in an equal quantity of tepid water. Then work into it a level tablespoonful of salad oil and five drops of the extract of the soja bean. Take a teaspoonful of poland starch (common old fashioned starch) dissolve in a little cold water and then pour over it a half pint of boiling water. Stir into this the bromose, etc., and add the juice of half a lemon. The result should be a creamy mixture with nutty flavor which will satisfactorily fill the place now assigned to the egg-made mayonnaise.

Japan Soja. A jar of the extract of Japan soja was received too late for careful testing or experiment. But coming from a German vegetarian laboratory and said to be free from injurious substances, it may prove a useful addition to the table. Following is a description of the Soy-bean from which it is made.

"Japan Soja, a substitute for flesh meat extracts such as Bovinine, etc., etc. The soy-bean or pea is a small erect herb, ("Glycine soja," or "soja hispida") of the bean family, "Papilionacees" (a²) of India and China, cultivated for its seeds; composed of 38% proteids, 17 to 20% fat, 5% cellulose and 4.5% ashes. The hygienist loses nothing by declining flesh meat extracts of any sort, but substantially gains by adopting Japan Soja, a safe and

far more palatable flavoring for various dishes. It may not only be so employed in the preparation of dishes, prior to serving, but subsequently and similarly to Worcestershire sauce, etc."

The odor and flavor of this preparation is very delicate and may readily supply a need in the dietary of those who are making a change from animal to a vegetable diet.

BROMOSE AND NUT BUTTER.

These very desirable articles with several other additions to the hygienic menu were also received at "the eleventh hour" too late for critical experiment. But as they are manufactured in vegetarian laboratories and guaranteed free from animal fat and withal seem to fill a gap and supply a need, a few recipes containing them are given, but time was too brief to do them justice. Crushed nuts, nut butter and nut meal of home make were used in all preceding recipes containing nuts.

CHAPTER XII.

CONDIMENTS AND SEASONINGS.

From the remote day when the first salt crystal was applied, probably by accident, to animal food, and the partakers thereof discovered a new flavor, enticing the human palate from the natural into the artificial has formed a large part of the occupation of mankind.

Flesh-eating perverted the taste, and condiments have multiplied until our gustatory civilization has increased the amount of spices, seasonings and flavors, and their destructive tendency to health and morals is not only apparent, but truly appalling.

The cumulative effect of these spices may be better realized by taking in the mouth a lump of salt, a teaspoonful of pepper, mustard, ginger, nutmeg, allspice or cloves. Make them into a poultice and apply to the flesh; observe how nature resists the intruder. What then must be the result of daily repeated application to the more susceptible membrane lining the digestive tract? Yet every day at the table are consumed quantities of several condiments. Meats and vegetables are blackened with pepper, deluged with sauces, catsups, etc., besides numerous additions of salt, vinegar and pickles; then follow liberal potations of hot tea and coffee to quench the internal fever. Possibly a bottle of port, sherry or mineral water is also required to aid (?) digestion, while the partakers

thereof flatter themselves that they have been bountifully fed and are well nourished !

The wonder is that people are not more "nervous," "stupid and dull," have "harder headaches" and are not altogether more "uncomfortable" after indulgence in these unrighteous combinations of food and drink. A still greater wonder is that the human digestive apparatus will accustom itself to incessant abuse, even to the reception of slow poisons, distributing them in various nooks and channels of the body until they accumulate to such an extent that watchful sentinels ring in the alarm with aches, pains and spasmodic twinges "too grievous to be borne."

Is it, then, anything strange that men die suddenly at their own tables, at feasts and banquets spread in honor of events and individuals? Is it any wonder they drop dead on the street, the rostrum and in the pulpit? Need we marvel over the increase of suicide and insanity, or that the oppressed and abnormal brain plots crimes against the body politic?

Dietetic reformers are convinced that of the vices which mar individual character or develop into crimes, it may be truly said *at our own tables these have their beginning*.

Nature in her wonderful laboratory has included every salt and chemical essential to the growth and development of the animal kingdom. Has she exhibited less care and wisdom in preparing food for the human family? The difficulty is not with the food, but with our perverted appetites. We have added to, or subtracted from pure food till natural flavor and identity are almost obliterated. Indulgence in the use of animal food has encouraged this pickling, salting and spicing process until we, the individ-

ual, merely "stay" in the body, the flag of our energy drooping at "half-mast," instead of so living as to develop every inherent power to its utmost capacity, as befits the noble masterpiece of the Divine mind.

Nuts and fruits are delicious and abundant, and as we walk among them, gathering here and there, we never think of seasoning them; even the dry kernels of grain are sweet. But when they become a part of our household supplies, foreign additions are deemed essential to their perfection in cooking. The universal use of condiments is no argument for their essential importance.

Vegetables of good quality properly served retain their peculiar juices and flavors, and an unvitiated taste will enjoy these delicate individual flavors with keener relish than the more pungent qualities of the various condiments which appeal to the partially paralyzed organs of taste.

Salt—chloride of sodium—is a constituent of the human body and is also found in wheat and other grains and vegetables, properly combined with other salts, such as sulphur, iron, potassium, etc. Why not season our food with these as well as salt; or did the original chemist forget to mix the proper quantity of chloride of sodium with the other food ingredients, and thus compel the use of this mineral to make our food complete? Salt destroys natural flavor and gives its own flavor to all food, but if the salt eater abstains from it a few weeks, hitherto unknown flavors will be discovered in food. Salt also induces unnatural thirst, and an extra amount of liquid is consumed to assist nature in diluting and washing out from the stomach and blood an abnormal substance. Competent medical authority asserts that salt is an irritant

mineral poison and cannot be appropriated or used in the vital domain, but is eliminated like other poisons, or, if retained in the system becomes a source of disease.

It is a well established fact that the more injurious and unwholesome the things we use as food, drink or stimulants, the more difficulty we have in giving them up and the greater the disturbance in the system while we accustom ourselves to the change. The tobacco user, the liquor drinker, the tea and coffee devotees are not unfrequently made very ill upon suddenly or even gradually lessening the use of those luxuries, thus proving the extent of the injury to the system and also the fact that they are dependent slaves to injurious habits. And so with excessive salt eaters; upon gradually lessening the quantity used, or entirely abstaining, they are often afflicted with salt salivation, showing that somewhere in the system an excessive amount of salt exists, and nature gets rid of the surplus in that way.

In a similar manner tobacco, liquor and poisonous drugs, calomel, etc., are eliminated from the body while the sick are pursuing a course of hygienic treatment.

It is popularly said that men and animals need salt as a means of health, yet there are herds of animals, wild and domesticated, that never eat it. The fine cattle of Scotland refuse salt, and it is only forced upon such as are intended for sale, when it is done to induce an abnormal desire for water to bloat them into an appearance of fat before market day.

Entire races of men are unacquainted with salt, and thousands of hygienists and vegetarians abstain from its use. Their families will not suffer in comparison with salt eaters, either in point of health, strength or endurance.

The above evidence is not obscure, neither are living illustrations difficult to obtain, as they were fifty years or more ago, and we only ask people to experiment and adopt the better way so far as intelligence and good sense permit. Having lessened the quantity of salt, the appetite for pungent spices and condiments will decrease and later the desire for drinking at meals will cease and the path to the saloon will be less frequently traversed.

As substitutes for injurious spices and commercial condiments composed of unknown and largely adulterated ingredients, we can grow our own sweet herbs or purchase them unmixed.

In the "craze" now so prevalent for old-fashioned household goods, why not reinstate the aromatic seeds of "long ago"? Why may not sweet marjoram, sweet basil, rosemary and lavender, lemon verbena, rose and geranium leaves lend their exquisite flavors to our food? Thyme, parsley, sage and mints of various kinds, with onions, celery, tomatoes, limes and lemons will yield us variety, while oranges, pineapples and a host of nature's delicacies surround us and we can obtain them in their unadulterated state, and indulge in a profusion of wholesome flavors and seasonings, attended with no risk to health unless from excess.

CHAPTER XIII.

PUDDINGS, PASTRIES AND CAKES.

We read of dangers lurking in the air, of deadly "germs" and invisible microbes by the million, and a thousand things outside of ourselves lying in wait for an opportunity to destroy us. But the dangerous elements concealed in the daily food supplies and constantly being developed in the kitchens and cook rooms all over the world, (both public and private) are productive of more extensive and deadly "colonies of bacteria" than can be found elsewhere, to say nothing of the more visible dangers forming a constant menace to life and health. The exacting methods of the present-day pastry cooking in its various branches, are more productive of back-ache, nerve-ache, "microbes," doctors' bills, fretting and worry-producing wrinkles than any other branch of domestic labor. Health and time are too valuable to justify the expenditure of several hours daily in concocting superfluous dishes, usually eaten when we have already had sufficient of other things.

In this department are found pungent spices, distilled essences and alcoholic fire-brands that assist in evolving the most astonishing mixtures called food. Here, too, is where the fine artistic creations in cookery develop. Girls must be proficient in manufacturing all sorts of sweets, no matter whether they can make a loaf of good

bread, or cook a dinner. For are not these cakes big and little, frosted, ornamented and stuffed with rich fillings, all of which "melt in the mouth," the very triumph of skill? At any rate, they form the bulk of what the world feasts upon at teas, lunches, clubs and all the social functions, church suppers included. How could the purses of the "male persuasion" ever be reached except through a tempting appeal to their palates? And they are so gracious and benevolent; they buy, eat and give away until often a restless, internal fever is developed. Fancy drinks are next indulged in, and appetite rules at the expense of digestion. Intemperance and moral obliquity not infrequently find their parentage in indulgences at public tables, spread in the name of charity and the best interests of humanity; or in private under the guise of sociability. And even though acknowledging the really gigantic efforts put forth in behalf of temperance, when we reflect upon our methods of cookery, why marvel because liquor saloons, tobacco and opium dens multiply and flourish, or that the United States pays out three or four times as much for crime, as it expends to make the world better.

Aside from this, and the extra labor of hands, head and feet required in the preparation of these dishes; the fuel for cooking and patience in caring for them during the process; just consider the necessary "stock" demanded for this special line of cookery, and calculate the nervous and financial outlay. Do not forget that these are *conventional indispensables* and not the actual "needs" of the human body. To prepare these artificial indispensables(?) we purchase extensively of those things that enter into no other form of cooking, and combine them with the starchy

impoverished white flour, the fruits used being the one redeeming feature.

If housewives would devote a little time to an examination of the State Board of Health statistics, and ascertain how much corn, chips, stems, chaff, saw-dust, charcoal, undefined dirt and other foreign ingredients are found by the detective chemist in food supplies, they would doubtless be surprised at the revelations, and might thereafter be able to obtain pure goods *by making a demand* for them. Nearly every article used for food is adulterated, dairy products not excepted. More than 200 samples of spices were recently examined at the Connecticut experiment station and most of them contained spurious matter.

Suppose we count the hours spent in whipping cream, manufacturing cake, and beating eggs for puddings, pies and frostings, ornamenting merely to please the eye and the palate for a brief time, and also consider the penalties paid later in physical suffering and doctors' fees. Does the compensation justify the outlay? Is it not humiliating to contemplate this worse than waste of time, strength and money? And thousands of professional men and women caterers are literally devoting all their time, strength and ingenuity in devising ways and means to gratify the ceaseless demand of artificial and perverted appetite for something new and rare.

Women of culture and intelligence devote much time and thought to the consideration of other and less important subjects; and why not then, to this matter of diet which has such a vital bearing on our whole being, physical, moral and spiritual? Nothing so affects the home and through the home the outside world.

To the majority who are unaccustomed to hygienic

living, how to modify or dispense with these injurious compounds and supply equally delicious substitutes, is the great problem. Nature has prepared a vast amount of food for us, and her productions are far more tempting and healthful than anything can possibly be coming from the hands of sickly or inefficient cooks; and even the professionals too often set before us compounds so doctored and mixed that we are compelled to pronounce them nameless. If the authors of cook books and inventors of fancy dishes were compelled to subsist upon the products of their own formulas, they would not live to inflict a second edition on a suffering public.

The scientists at present investigating the food question, tell us that our diet is very one-sided and that we eat too much of "sweets, fats and starch." In the special department of cookery under discussion those elements predominate; and if we only see fit to completely or even partially eliminate them, this part of the problem will be settled. But these pastries are "so handy," it has become second nature to eat them at any time of day or night, and to get them anywhere obtainable. Children suffer more from excessive use of these things than adults, and every mother should be interested in banishing them from the table, or in learning how to make them less harmful. In this connection the following suggestions may prove helpful:

1. Every kind of cake, and in fact every article of food we make with any shade or grade of flour or meal, will be a perfect success if mixed with pure, soft, cold water, instead of milk. Boil and cool the water if hard, or "suspicious" in any way, and keep it covered to prevent absorption of impurities.

2. Substitute vegetable fats and nuts for animal fats and dairy products. They are less expensive, more healthful and but little more than half the quantity is required for any desired result. The food is sweeter, lighter and devoid of any greasy odor or taste. (See chapter on Vegetable Butter and Oils.)

3. Reduce the number of eggs ordinarily used by one-half or more, to begin with.

4. Sugar, which we habitually use to excess, might be gradually reduced in amount by one-third, then one-half and the food would be less clogging to the system.

5. Spices should be gradually eliminated until ultimately excluded from the cuisine ; and this also applies to alcoholic extracts and flavors. For these, substitute fruits dried and fresh with their juices, caraway, dill, anise, lemon verbena, geranium, rose leaves, etc. Crush the dry seeds and carefully steep the leaves as needed.

6. Reduce the salt crystal to the smallest amount, and thus learn the taste of food ; and “lastly” substitute the entire wheat flour for at least two-thirds of pastry and cake preparations.

Examine any cook book, magazine, or paper containing recipes for cake, and it will become evident that they do not in any way contribute to the nourishment of the body, but cater only to an artificial taste which over-rides the natural appetite and demands more of these sweets than is either wise or healthful. On this subject, Mrs. Emma P. Ewing says :

“Cake is innutritious and unsatisfying to a healthy appetite, while properly made bread contains just the nutrition the physical system demands. Cake deranges the digestive organs sooner than any other article of diet and a large proportion of the headaches and stomach

ailments with which women are so constantly afflicted are the legitimate results of cake eating. A hankering for cake is induced by a deranged appetite and a deranged appetite is the outcome of nibbling at cake for supper nearly every evening through the week, month and year."

Pies and puddings may be modified in like manner, so long as these articles are deemed essential to your table. From a hygienic standpoint, we are better off without them.

Puddings composed of milk, eggs, butter, sugar, spices, and served with rich sauces, are unhygienic and dyspepsia-producing. Only a perverted appetite will take delicious fruit, spice and sugar it and inclose it between crusts of starch and grease that would give an ostrich indigestion.

When the importance and necessity for changes in these directions are realized, the table can be supplied with substantial varieties of bread, made from entire wheat flour, Graham, corn and rye, granulated wheat, wheatlet, farinose, granula and scores of cereal preparations perfectly cooked and daintily served; while shredded wheat and granose biscuits already cooked will, with fruits, make a variety of tempting desserts without roasting the cooks, and the trouble of freezing the food after it has been cooked, and later applying the ice cold compound to the stomach already filled with a dinner "served hot." Vegetables also in well chosen combinations, the watery with the solid varieties, and nuts served with them in place of meat, what further do we need?

These are all so plentiful and in such great variety that there will be no lack of sufficient changes from day to day, although the more we conform to a pure standard of food, the less desire we have for frequent changes in the *menu*.

The time saved in thus banishing fancy dishes and other unnecessary preparations by those housewives who do their own work would, if properly utilized, give them a liberal education in any chosen direction, and prepare them and their children for the coming woman's era, which is yet in its inception. Upon the education and ability of every housewife to properly prepare food, or superintend its preparation, depends the health of the family. The vexed servant question will remain an unsolved problem so long as the housewife is at the mercy of an irresponsible cook. The latter is often provided with the choicest materials, a large quantity of which is wasted, the best portions often badly cooked and smothered with seasonings. The result is manifest in the improperly nourished bodies of children and in the failing health of other members of the household. Feeling the need without recognizing the cause, some substitute stimulation for nourishment, and at attractive bars and lunch counters seek outside the home, to satisfy the craving which is simply the demand of nature for nutrition. Not only this, but we shall be surrounded by undesirable and vicious social and physical conditions so long as the food for humanity is manipulated by the prevailing type of kitchen queen.

The future cook will be an educated person, imparting dignity to a vocation which will be considered as respectable as it is responsible. Her office will be quite as exalted as though she were engaged in law, politics, art, music or the ministry. And why not, when we realize the fact that she occupies the most responsible position in our homes, and that upon the food she prepares depends the "weal or woe" of homes and nations? Our physical,

moral and social health is dependent upon what we eat, and if we learn to live more in harmony with hygienic law, we shall become our own health-preservers instead of health-destroyers. Health, strength, fine complexions innocent of poisonous cosmetics, and plump, rosy-cheeked children will then be quite the fashion, and "nerves" quivering upon the outside will be duly clothed with substantial flesh.

Part III.

CHAPTER XIV.

MILK AND THE COW.

Milk is the natural food of all classes of mammalia until the development of teeth; then more solid food is required, that bones, teeth, nerves and muscle may become strong and well developed.

Animal mothers find no difficulty in furnishing an abundant supply of the lacteal fluid for their young. The lack of this quality in many human mothers during the present century shows that something is entirely wrong in the existing conditions surrounding the human infant population.

Cow's milk being unlike human milk in some respects, was evidently intended by nature for the offspring of the cow, and no other. And yet statistics inform us that Great Britain consumes 250,000,000 gallons a year, which costs £17,000,000 or \$85,000,000. The United States consume 5,000,000,000 gallons a year. Many people insist that they have pure milk simply because they have an honest milkman. But the contamination of milk is often produced by causes over which the milk seller has no control. Various foreign additions enter the milk through the dirt and dust from the cow and the barn, through the friction of milking, the dusty clothing of the milker and water used for cleaning dairy utensils. Add

to these the food and drink of the cows and their possible diseased condition, how can we expect pure milk? Its contamination in various ways has been proven beyond question. That its use contributes largely to the causes of illness and death is no longer disputed.

An article on "Bacteria in the Dairy," by A. E. Loveland and W. S. Watson, in the Seventh Annual Report of the Storrs Experiment Station, Connecticut, says:

"It has been found that the milk from a perfectly healthy cow, when entirely uncontaminated, is absolutely sterile—that is, contains no germs. But ordinary milk always contains bacteria, and as milk furnishes an excellent food medium for their development, they will multiply very rapidly."

We are also informed that there are many millions of bacteria in every pint of milk, depending upon the locality of dairies and the care exercised in handling; and that the milk obtained in a *clean stable from a well-kept cow*, and milked into a sterilized bottle, contained thousands of bacteria. But when the milking was done under the ordinary conditions of farm practice, "the number of bacteria was increased to millions." Milk is far more dangerous than meat, because used largely in an uncooked state.

Have our scientists told us how it happens that "milk from a perfectly healthy cow, when entirely uncontaminated, is absolutely sterile"—that is, contains no germs—and yet that it is impossible to find milk devoid of "germs" at the present time? Have they discovered the process by which the bacteria first come to exist in milk; or will they continue to multiply the bacteria, kill them and run the risk attending their use?

How unfortunate that the anatomy of the cow is so constructed that her milk is only obtainable in a pure condition, through the natural way, by her own offspring!

An extract from an editorial in "Medical News" Dec. 29, 1894, says on milk:

"It is simply the question of germs, and already the use of milk is lessening. Thousands of families boil it. Thousands avoid it when possible, and with good reason, for milk has been proved to have conveyed to the human race, tuberculosis, typhoid fever, scarlet fever, diphtheria, dysentery, cholera infantum, cholera and ulcerative stomatitis. It would not be impossible, under a universal public disgust, for the whole business to be ruined. The conservatism of the kitchen still holds to it in cooking, but it seems probable that very soon we shall have recipes for all necessary dishes without it."

These are words full of meaning, and should the entire bovine race be exterminated we could exist without the bacteria laden milk, as substitutes are already in use for necessary culinary operations.

There are forms of condensed milk, *unsweetened*, which are preferable to the uncertain quality of fresh dairy milk in its present doubtful condition. Indeed, it seems very strange that, with all the startling facts and figures that have been placed before us during the past years, any thoughtful person should fail to recognize the risk attending the use of dairy products.

BUTTER AND CHEESE.

All that has been said of milk applies to butter and cheese.

It may not be known to consumers of butter that an artificial method of producing the flavor of JUNE BUTTER has been discovered. It is, however, no secret, as scien-

tific and agricultural papers are giving it wide publicity as a supposed benefit to both producer and consumer. This consists in breeding a certain form of bacteria, pronounced harmless(?), and with these innoculating the cream. The rapid formation of millions of these living organisms produces the priceless flavor which old-fashioned people rejoiced in as "June butter," and by this *artificial propagation of bacteria* we are enabled to have JUNE BUTTER all the year round, and can congratulate ourselves on becoming the mausoleum of still another form of animal life.

THE DOMESTIC COW AS SHE WAS AND IS — TUBERCULOSIS.

It may be well, in view of what has been said on dairy products, to devote a few pages to this subject.

The cow in her native home led a natural life, reared her young, suckled them till they were old enough to obtain their own living. Mankind, ever intent upon something to gratify the appetite, discovered that cow's milk was "very good," and although duly weaned from their natural mother, claimed the mother cow by adoption, and from her have not yet been weaned.

That milk is a forced product is a fact not generally thought of, but it must be known that if left to nature the supply would cease when the young no longer required it. Who, living in the country, has not been thrilled night and day for weeks in succession by the wailing and lamentations of the bovine mothers because of their babes "which were not"? Has the cow love and the power of suffering; is she capable of mental anguish?

The later method of confining the hand-fed calf in sight of its mother does much towards quieting her mind, but

does not give the calf its natural food while preparing it as *veal*, to be used on our tables.

The old-fashioned cow of lowly birth and pedigree presents a strong contrast to the modern cow of noble lineage and high-bred ancestry. Her home was the farm pasture, not always the best, it must be admitted, but where she browsed all day in the pure air, regardless of sunshine or storm, and lay under the trees contentedly chewing her cud from early spring until late autumn; her breath was like new-mown grass, her milk of pure quality and butter sweeter than the modern gilt-edged at 75 cents a pound. When housed she was fastened with a rope or chain that gave her freedom of movement. She was often chilly, no doubt, from the winter wind sweeping through a few unnecessary ventilators, but even this did not produce tuberculosis, for the pure breath of life from the outside was far preferable to the close atmosphere of the modern stable. Even her cold food and drink were less disease producing than the heated, stimulating rations of to-day. Animals in a natural state rarely become diseased, but when domesticated they are soon more or less afflicted with various ailments.

With the onward march of our own so-called refinement and civilization we have taken the cow with us, subjected her to similar conditions and she is sick from the same causes that produce sickness in the human family. As a result of this, an ever increasing army of doctors have followed in the wake of civilization everywhere, both for the animal and the human, while grim death, regardless of place or position, of poverty or wealth, has gleaned more victims from this national disease — tuberculosis — than from any other.

The statistics of this disease, under various names, are appalling among children under five years of age, their diet consisting largely of milk, and are almost incredible among youth and adults.

As with the human family, so with the animal world. They develop the germs of disease in precisely the same way; many perish in early life, but by far the greater number are to-day furnishing our food and dairy supplies. Afflicted with the most disastrous and far reaching disease, exceedingly difficult of detection, we are now watching with the deepest interest the work of the conservators of the public health.

The gray-haired farmers look backward and say, "We did not hear of such things when we were boys on the farm, what can be the cause of it"?

With money and influence behind them, the cattle commissioners are busy inoculating with tuberculin broth, inspecting, condemning and sentencing to death thousands of cattle, diseased through no fault of their own. And how many of the sleekest, fairest, most brilliant eyed and apparently healthiest have been slain, under protest of the owners, who have been speedily convinced that they were full of tubercles!

We are told by the highest authority that this disease is communicable to man by animals, and to animals by man, and that men having a tendency to this disease must not be employed to care in any way for our cattle. But has such important sanitation so far progressed that anything has been said about the army of men and women afflicted with this disease in its various incipient stages, and numerous ramifications, who prepare food and care for human beings?

Viewing the situation in its various bearings, the expense incurred through the elaborate housing, the unnatural feeding, the greater outlay for extra care because of palatial surroundings, the close confinement in their stables, with but a limited supply of fresh air, sunlight and exercise — three of the prime essentials to good health — and last, but not least, the heavy expenses attending sickness and death in the human family, the continual losses of stock, and to sum up all, the terrible slaughter that is at present threatening to nearly exterminate the bovine race, has it paid to force and stimulate to the utmost capacity the production of milk, thus furnishing the conditions that have produced this destructive contagion? Subject the human race to the same conditions, and it would soon be exterminated.

With a view to thoroughly understanding the condition of "well-kept" cows the writer visited a large barn where there were many of fine breed and illustrious pedigree. They were doubtless as well cared for as the majority of cattle that are turned out to pasture during the summer and get an occasional airing during the winter. The unceasing movements of these cows as they stood fastened by a most uncomfortable wooden invention, and the poison-laden atmosphere of the tightly closed barn, were in painful contrast with the bracing air and glowing sunshine outside.

Their special virtues were detailed; the large amount of milk and the quality of cream produced for the creamery; the quantity of food allowed them and its cost, and how extremely fond they were of ensilage that the obliging farmer tossed out upon the floor for my inspection, hot and steaming, like a kettle of boiling water upon the stove.

"And this is the result of the half dried cornstalks you were packing in the silo last fall"? "Yes, and it's the sweetest, most economical food we can give them, and they are so fond of it, they would nibble on it all day if permitted." I picked up a large handful to examine and said: "Yes, they like this alcoholic ensilage, just as the dram drinker likes his dram. Economy in food it may be, but waste of health and life."

It is no longer a wonder to me that diseases have increased as artificial foods have multiplied; no longer a mystery that the temperance outlook is at times discouraging, when the vapor arising from the "most economical food for cows" is almost enough to intoxicate one unaccustomed to the use of stimulants. Daily, babies and invalids are depending for their lives on the milk from cows fed on a food so stimulating they cannot be "permitted" to nibble on it all day.

Yet when the barefoot boy drove his cows to pasture in the blessed old time way, they nibbled the juicy grass all day without injury and came leisurely home at night with udders dripping with milk which in those days had no suspicion of tuberculosis.

We read that men can be fined and imprisoned for "feeding cattle upon any substance in a state of putrefaction or fermentation," and also that "tuberculosis is very frequently found in cows that are fed on brewers' grain." If these are facts, why have the farmers all over the country constructed breweries and produced a putrid, seething mass of poison for their cows, cooked and fermented until its original character is destroyed? Let the poorer class of farmers take courage and cease to lament because they are not rich enough to build a silo.

As physicians are often powerless to remove conditions that produce disease, and establish more natural surroundings, so in like manner will it prove a difficult matter for cattle commissioners and veterinary surgeons to regulate the conditions that surround the farmers' cows, unless sanitary rules are made and enforced, as they are in the production of milk for condensing factories. Their cows are "fed only on fresh grass, hay or forage, sound grain, feed, etc. The prohibited foods are ensilage, brewers' grains, barley sprouts, glucose meal, etc. The dairymen are required to keep their stables clean and neat, to whitewash them and to take special care in keeping the milk free from all contamination. They receive frequent visits from inspectors, who see that the requirements of the company are carried out."

Why then should not the same rules be enforced in every farmer's stable? If milk to be condensed must be of the purest quality, why should the milk for creameries and for home consumption be any less pure? The need is no less imperative, as milk and its products are so universally used without cooking, the danger being far greater than when cooked.

The highest interests of the consumer are at stake in this matter, and producers cannot afford to ignore the claims of an intelligent public, who are rapidly being aroused upon this subject; they cannot with safety to purse or conscience refuse to accede to the demand for purity of animal products, so long as they are considered necessary articles of food.

CHAPTER XV.

FEEDING INFANTS.

The time was when mothers did not presume to set aside the wisdom of nature and resort to artificial feeding of their babes. This unnatural method of nourishing infants has of late years become so common as to cause little comment; but as the result of it, count the millions of tiny grass covered mounds in the gardens of the dead, and remember that the ignorance of mothers and nurses in feeding infants is worth millions of dollars to doctors, nurses, florists and undertakers every year!

If such extensive mortality existed among calves and lambs, chickens and pigs, the alarmed farmers would demand immediate investigation and, if necessary, government appropriations by the million would be poured out from the national treasury to prevent these premature deaths, which to the farmer mean financial disaster. Does such disaster mean anything in the millions of homes thus afflicted, except a serene resignation to the "Divine will," or perchance a censure of "Providence" that so "afflicts" us?

But are investigations complete, and preventive remedies sufficient in domestic life which cease with the stock? If not, why not? If the researches of applied science have been exhausted, then why the unnumbered hosts of

infants and young children that are yearly born into the "kingdom of heaven," when they should have come to the home prepared to remain and perfect their physical lives in the kingdom of earth?

We are ushered into this world without any will or desire of our own; the most helpless of all animate life, yet destined to the highest possibilities for good or evil. Infants, like clay in the hands of the artist, are to be moulded as we will; to be clothed, fed and cared for as our judgment dictates, be it wise or foolish. One of the first stumbling blocks to the infant life is a dose of artificial food and irregular feeding. This induces internal disturbance and volcanic rumblings are heard and the flame leaps forth, heralded by pain and agony. Soothing syrups with foundation of opium and whisky are then in order, and the infant is "soothed" into an unnatural sleep, while the lesson to mother and nurse is only to apply a similar remedy for future pain, instead of learning how to avoid the cause.

Before the teeth develop the babe is given a taste of nearly everything, tea and coffee included, and later, not only three or five times a day, but at home and abroad the everlasting "something to eat" is an ever present demand, and the supply never fails whether it be given by mother or nurse or is taken from the pail of "goodies" made especially for the little ones to refresh themselves with whenever they please. There seems no limit to the rubber-like capacity of the juvenile stomach, which will close upon anything that tastes good, one important compensation observed among young children being a nervous restlessness requiring increasing care on the part of those having charge of them. Thus continues

the process of feeding all through the earliest years, with various additions and irregularities, the stomach seldom at rest and frequently illness the result. Before the child is five years of age it has become accustomed to rich food, meats with objectionable hot and spiced dressings, and if it survives, what is its physical condition, what its resistance to disease or temptation? This is about the average treatment children receive who are well supplied with milk in the natural way, by mothers in fairly healthful conditions. The mother who is diseased cannot furnish wholesome nourishment for the babe, and if she eats and drinks improperly, takes medicine and stimulants, her milk becomes laden with impurities and disease germs. If she be nervous and mentally disturbed by grief, anger or fear, and nurses her babe during or soon after such disturbance, the babe may become violently ill or die because of milk poisoned by excess of emotion. The same conditions that affect the human mother also disturb the cow and affect her milk, which is already, according to the consensus of wisdom, in a diseased condition, or if healthful, becomes at once upon exposure alive with bacteria, even with the most scrupulous care.

Science instructs us to "sterilize" the milk and kill the germs. Experience proves that this process is not always effectual, and physicians in extensive hospital and private practice have proven that the ordinary process of sterilization renders cow's milk unfit for nourishment.

Human milk and cow's milk differ widely in composition, the former containing more fat and sugar and less albumen than cow's milk, which when reduced with water and sweetened does not render it a perfect food for infants.

A vegetarian scientist, Dr. Lahman of Dresden, Ger-

many, has invented a product from almonds, nuts, etc., which he calls vegetable or plant milk; this is a very near approach to human milk, but like other preparations of food for infants requires the addition of cow's milk. Dr. F. Hornef of Falkenstein, Germany, says of this milk: "If it be diluted with five parts water, we obtain a preparation which gives the same percentage of albumen, sugar and salt as in human milk, but nearly double the quantity of fat."

Investigation by the writer has failed to discover any manufactured food for infants sufficiently nourishing without milk. There are several reliable cereal foods for infants, and "bromose," a recent product from nuts and cereals is recommended. As these artificial preparations require cow's milk to perfect them, and in view of the enormous death rate among children, it would seem the part of a wise economy to glean from the fat of the land some natural food for the sustenance of the much abused infant population. Could this be accomplished, it would mean life and health to millions of infants. The producer of such a product would reap the rich reward of a nation's gratitude and the benediction of every mother who cannot nurse her babe.

The mild fruit juices are acceptable to infants, and oat meal, wheat or other gruel, well cooked and strained, would with fruit juice or the juice of nuts be far more desirable than milk and less liable to prove disastrous.

Infants artificially fed require *no seasonings* of any sort; if "brought up" in that way food would be relished just as well as if seasoned. An article unpalatable to the child would be instantly discarded; but if it be seasoned to teach the appetite for it, the first step has been taken

toward perverting a natural instinct, unless the unnatural has been "born in them." (See page 153 on Substitutes for Milk.)

Infants are young animals and require regular feeding, as little "fussing" over as possible, quiet and sleep at least two-thirds of the time until three or four months of age. Do not overfeed them. Nature's method of disposing of surplus food is not a "sign of a healthy child," but rather the lack of proper care on the part of the mother or nurse. Do not take a very young infant to the table and give it a taste of anything thereon. Potatoes, white bread and crackers or other starchy food should not be fed to young children, and yet these are often the regular diet. Banish everything from the nursery made of white rubber, as it is poisonous. When babies require something to assist in the "coming" of teeth, take some Graham meal or entire wheat flour and mix it with cold water about as stiff as possible; knead and cut in the form of biscuit or rings three-fourths of an inch thick; bake until thoroughly done hard all through; one of these will give sufficient exercise for some time and assist in making beautiful teeth. Fruit juices may be added to the regular dietary of a child three or four months of age, and the juices of the mild, sun-ripened vegetables a little later. Bread made of the entire wheat should be the rule and fine flour preparations banished from the children's table. Feeding young children, properly or improperly, exerts an influence over their future life.

Nature's processes are alike, whether the home blossoms are born to poverty or wealth. The new babe introduced amid the most uncanny surroundings may be just as dear to its mother as is the babe surrounded with all the luxu-

ries of wealth, yet each may fall victims to the ignorance that leads to disease and early death.

THE UNRECOGNIZED PITFALLS BY THE WAYSIDE OF LIFE.

Along the pathway of life are numerous pitfalls, and the appetite created in the nursery may be, if continued, the feeder which leads to intemperance and crime. An artificial appetite created, fed and encouraged by the hand of ignorance, misled by affection, which denies the child nothing, is the essence of selfishness and criminality. It not only sacrifices myriads of infant lives upon the altar of appetite, but it wrecks and ruins millions who survive the feasting and drinking. The child matures ignorant of the natural taste of healthful food, and the depraved palate craves stimulants in food and drink. Home cookery failing to meet this demand, upon the street at every turn are public pitfalls that engulf their victims, and in our cities night and day the doors are open. Displays of body and soul destroying viands, enticing with their dainty trimmings, their delicious odors and "melt in the mouth" qualities, prove very tempting to an already vitiated appetite, and away go the dimes and quarters in exchange for edibles often consumed at the counter. Out again upon the street with feverish thirst aroused, fountains of soda and mineral waters, hygienic (?) beers and other questionable drinks greet the eye and extract the pennies with candies and chewing-gum doubtless among the gustatory outfit; and if these will not suffice, peanuts and fruit complete the menu. Take observations any summer day and witness the throng of growing youths, to say nothing of the adult population who indulge in these things at irregular hours. A little farther on the way, and our young men lose their hard earned dollars to supply their

girl friends with sweets, morning, noon or night, while they regale themselves on cigars and beer. Indeed, the gustatory habits of children and youth almost exceed belief. Is it any wonder our teeth, hair, eyes, ears and faces are put in the hands of physical renovators and artists for repair and decorations in early or middle life? Is it any wonder that doctors' signs accumulate like leaves in the forest, and that many of them are amassing wealth from the infirmities of the race? They would be very unwise to mention such a fact as having "MADE IT ALL IN DOCTOR'S FEES." Sir Andrew Clark, the great English physician, died recently leaving an estate of over \$1,000,000, and it is a matter of great pride with his relatives and friends that he made every dollar of it in his profession.

Another case is that of Sir William Gull, who is said to have started without a penny and to have amassed a million and a half by his profession. A daily paper commenting on the above said, "It is cheering to note that it is possible for a man to earn a million by honest work solely in his profession." But *is it a "cheering" thought that there is an army of people in the world requiring, even in the United States more than one hundred thousand doctors to keep them in passible condition.* If any one has any doubts on this subject they have only to read the stories furnished by the press, thus heralded to the world at an enormous price,—*and the invalid public pay the bills!* Very few enjoy paying a doctor's fee, because it seems so unnecessary and exorbitant, and nothing so hampers and discourages a poor man as to be constantly paying doctor's and druggist's bills.

It is time to consider this question and close the

dangerous pitfalls inside the home, and those outside would close for want of patronage. Time to bear in mind that the unrecognized pitfalls which line our public path way begin at the very inception of life, are fostered in the nursery and receiving additions from time to time, the result to youth is more artificial than natural, and they cannot well avoid "the little foxes that destroy the grapes." They have not the faintest glimpse of the truth, that indulgence in these opens the door to the saloon, to vice and crime even among the "pillars of the church and state" with whom they daily associate, perhaps reverence and love as models for their conduct.

CHILDREN'S LUNCHES.

Herein lies another pitfall for irresponsible childhood and youth, opened by the mothers who tax their indulgent ingenuity to the utmost to provide dainty school lunches for their children. Many school children, from over-taxation of brain and insufficiently nourished bodies, arise in the morning with a headache, no appetite, and are generally uncomfortable. A child's appetite should not be coaxed, neither should a tonic be given to create an appetite, but wait. Supply the lunch box with fresh fruit and a few Graham crackers, to be eaten when needed, and the probabilities are that a "good appetite" will do justice to a substantial dinner.

The contents of children's lunch baskets have alarmed many thoughtful teachers. They usually consist of cake, pastry, jelly, pickles, hard boiled eggs, ham and tongue sandwiches, tarts—white, flaky and lard-y—possibly a bottle of tea or coffee and perhaps some fruit added in deference to the childish natural preference.

In vain intelligent teachers protest and philanthropists write. Through the mistaken affection of untaught mothers the slaughter of the innocents goes on, until school boards have in some instances turned their attention to it and have arranged for simple lunches to be served at trifling cost. Talk about "cruelty to animals" and wickedness among "the heathen"! Every mother should organize herself into an investigating board and be a "society" for the prevention of cruelty to school children in the line of food alone, and she would find employment for the time she now spends in preparing worse than useless articles of food for the daily lunch.

Bread of various kinds with fruits and nuts are sufficient in variety to furnish healthful lunches, with how much less thought, care and time to prepare them, to say nothing of the rosy cheeks and sound, pearly teeth that would reward those who "eat to live," that they may make the most of life and its possibilities. Any one examining this subject in the light of the highest altruism will admit the necessity for missionary work in every home. Fed as children are from the nursery to the school age, the numerous "pitfalls by the wayside" in candy stores and soda fountains within reach are overflowing with temptation.

At no time does the child require more intelligent care as to its food supply than while in school. The brain work, the often irritating contact with other children, the anxiety and nervous unrest attending promotions and problems, the whole over-stimulating tendency of our public school system, induces a constant strain and effort which requires sound bodies, healthy brains and quiet

nerves. Very rarely are these obtained from the usual food supply furnished the nineteenth century children.

Teachers of the kindergarten insist on simple lunches, because the root of the kindergarten principle is the best good of the child and its three-fold development — physical, intellectual and spiritual; and thus the principle is recognized that the physical stands first in importance. In large cities where noon-day lunches are supplied to school children, even if the most hygienic food is not always served, the method insures regularity and security from outside temptation — two good points gained.

CHAPTER XVI.

SOCIAL REQUIREMENTS.

The question arises is it not possible to be popular in social life and not feel compelled to treat or be treated to a glass of wine, a cup of tea or chocolate, a plate of cake or dainty sweets. Can we not entertain without unwittingly injuring our friends by over solicitude with regard to feeding them at irregular hours.

The time was when "to get something good to eat" seemed to be the main object of afternoon and evening visits. But none of us would like to admit that good eating is the principal attraction and highest inducement our friends can offer us by way of entertainment.

We are social beings, and seek companionship with those upon our plane of thought. Hence the five o'clock teas, suppers and lunch parties in our homes and so prevalent among college girls.

When we consider for a moment the extent and magnitude of social functions, and modern customs, we almost believe that eating and preparing something to be eaten is the grand desideratum of life. But do these customs in any sense pay anybody except the caterers and the doctors. They demand an enormous amount of extra labor and entail heavy expense, often upon those who can ill afford it, by way of dress and decoration, in addition to the food prepared. Among the rich the expenses

attending social requirements are of little consequence. But the financial expense is by no means the largest item to be considered. The waste of nerve energy, intellectual power and vital force, are among the chief evils attending this artificial life.

An essential element either preceding or following a certain class of evening entertainments, is a bountiful supper, more or less elaborate according to circumstances. After eating the customary three meals a day, it seems very unwise to semi-occasionally, impose upon the digestive organs another meal composed largely of indigestibles, that the helpless stomach receives and patiently tries to properly apportion. Had this much abused organ the power of photographing the commotion caused by a deluge of hot tea or coffee, followed or preceded by frozen puddings, creams and ices of various kinds, the illustration might prove of greater value than all previous physiological instruction.

Add to these occasional dissipations, the magnificent entertainments of the select few and the social life of the lesser lights that flutter around them, imitating as far as means will permit and we have before our mental vision the grand pageantry of conventional artificial life! To move in "society" we often fail to represent ourselves, but seem transformed into something that demands a sacrifice of our true selfhood, that we may for a brief time become a part of the attractions that now and then almost eclipse the splendor and luxury of by-gone ages. Woman is largely the creator of social custom and she it is that helps to fashion and sustain it, by introducing innovations and taxing her powers to invent something new and startling in the social world. Should she turn

from this harmful feasting, wine-bibbing and drinking, these deceptive hallucinations would fade away in the brilliant light of an awakened womanhood that would lead to a wiser use of time and talents; and another feature not to be overlooked, mankind would turn their attention away from these alluring attractions that hold them with a grasp of iron.

Social requirements are burdensome in every way, and worst of all, these exciting intoxicating dissipations prepare the way for the physical and moral imperfection of future generations. Progress into this life has been wonderfully developed during recent years. From the plate of cake and glass of wine, the elaborate meals for invited guests, to the grand receptions in honor of events and noted individuals that end in a sumptuous repast, each and all are prepared with special reference to gustatory and social pleasure. No thought about the possible effects that are certain to follow causes which are often manifested in an unexpected manner. Possibly in the sudden death of some prominent person at the table who after a hearty meal endeavored to use his brain by making an eloquent speech, while the blood was in the stomach and nervous energy concentrated in the process of digestion, until the sudden demand for it in the top of the "house" caused the cessation of the busy wheels of life and "heart failure," apoplexy or paralysis are assigned as the cause of death.

It seems a matter of surprise that when men and women who have been engaged in helpful labor for humanity suddenly pass away that no special enquiry is made with reference to ascertaining the causes that have led to premature departure. A long set of "resolutions," the

life work made public, letters and messages of condolence an expensive funeral and thus ends the responsibility of those remaining. Why not pause and consider the causes that may have led to the sudden transition of a valuable and useful life, that had not half performed its work on earth, instead of resolving that it has "pleased the Almighty to remove an active worker in the cause," thus blaming the Creator for our sins. When women take note of such things and make a study of conditions and causes, subjects for social consideration, one great step toward a wiser more beneficent work for the race will have begun.

When matters pertaining to the inner life and workings of the home; the condition of its occupants and themes connected with domestic affairs; the creation of generations and how we can endow children with sufficient vitality to remain upon earth, instead of being transferred to heaven in a few months or years are discussed, then we may expect an improved order of men and women. When they discuss the causes that lead to drink, tobacco, opium and other unnecessary preparations, they will be engaged in promulgating thoughts and efforts for the redemption and purification of the world. When they organize meetings and discuss their own tables and begin to cast out the unwise and noxious supplies and substitute a higher order of food we may reasonably look forward to a more beautiful, temperate and solid foundation of youth maturing in the twentieth century.

How to economize work, save time and make improvements generally in our homes and every thing pertaining to the health of the household are not beyond the comprehension of most women, and in some places lines in

this direction have been thrown out. Art, music and kindred subjects would give added charm to visits, calls and entertainment. With these objects in view, an impetus would be given to the wheels of progress in new and desirable directions.

Progressive physicians would gladly lend a hand in public work in parlors or halls, and clergymen would find a field more productive of permanent good, than that afforded by special work one day in seven. To teach people how to live would discourage sickness and the exacting social requirements attending it.

When we, like a scientific surgeon, probe to the bottom and remove the offending cause, then we may expect rapid and healthful growth in every way.

When we cast aside one by one the fetters that enchain us body and soul to social custom and stand upon our true merits, representing ourselves as we are, life and its real duties and requirements will appeal to us and arouse an enthusiasm, that cannot be mistaken for a love of display. But if we must eat to express our sociability, let us set before our guests luscious fruits, unsullied with caterers additions and decorated with nature's appropriate leaves and flowers, rather than the milliners art. These served with wine freshly pressed from the grape, or even pure sparkling water, are sufficient for the daintiest repast. Should stronger food be desired the nut family will supply it, and from the snow-white mound of grated cocoa-nut to the plebian hickories, may be obtained sufficient variety to satisfy the most critical. If something more elaborate be essential invite the golden wheat to contribute a tempting array of various kinds of bread and when still more is demanded, then engage the vegetable host

to assist in furnishing color and variety to your table and with the addition of nut meats in lieu of flesh, a dinner fit for an empress may be served.

When we use more brain and less money in meeting every form of social requirement, we shall have a firmer friendlier grasp upon the world of thoughtful activities, than is at present possible, and may we not indulge the hope that women will ere long consider it not only unphysiological to provide culinary entertainment on every possible occasion, but decidedly vulgar to cater to appetite, thus making it obvious that the gratification of the palate is one of the "chief ends" of life.

CHAPTER XVII.

BAKERIES.

It is no longer a matter of conjecture that public bakeries are not the wholesome places they should be, neither are the men who manipulate food for the millions healthy and cleanly in their habits. Why such conditions ever existed, men only know, and women, who are the heaviest purchasers, never "inquire within" as to methods used, or conditions surrounding the preparation of the food supply either in bakeries or elsewhere. Sanitary inspection is now demanded that will, we hope, be pursued until unhygienic and filthy conditions are entirely banished from the bake shops. It is better perhaps that consumers of bakery-prepared food never get a glimpse "behind the scenes" or witness the preparation of dainties displayed in the shops.

Clean as the food appears, toothsome as it is, it seems almost incredible that the environments attending its manufacture are so extremely unwholesome, to say nothing of inferior and half spoiled ingredients disguised in various ways to conceal imperfections in material.

From the reports of inspectors we learn that the conditions are truly deplorable, and it is quite time to turn attention to more cleanly and wholesome preparation of food for human beings.

Taking the one article of bread ; thousands of men are employed during the night in making yeast bread that the public may be daily supplied with fresh rolls, biscuit and loaves. We are told that in many bakeries these men sleep on the tables where the dough is made into loaves for the oven, and indulge in baking tins for pillows. When we take into consideration the dark, damp, unventilated bakeries in basements and cellars, perchance under sidewalks and streets in large cities, where they are constantly filled with noxious poisons from sewerage and other filth, the marvel is that men continue to exist in such places any great length of time. Uncanny as these features are, the sickly men, often saturated with tobacco, opium or liquor, the emanations from their bodies and breath mingling with the food prepared, we wonder the partakers thereof are not poisoned more often than they are.

Dr. Guy of London, whose name is made famous by Guy's Hospital as well as his own benevolence, has announced in his admirable and painstaking research on this subject, that he "discovered among one hundred and eleven journeymen bakers one hundred and twenty-five diseases, or more than one disease for each of the men employed in mixing and kneading the dough, and sleeping in the troughs from which bread is made for the greatest city in the world."

In view of such facts, it will not require a wide range of imagination to invest the public bakery with "all manner of uncleanness."

Investigation has led the writer into small bakeries where cleanliness prevailed, but a woman was in each case the presiding genius. But even in some of these, the

odors arising from over-fermented bread were oppressive, and the bread when cut emitted a decayed and sickening smell that revealed the presence of thousands of uncooked "germs" that would soon destroy the loaf if enclosed in a warm place, or create fermentation in the digestive organs of those unfortunate enough to partake of it.

A visit through the various departments of the most extensive city bakeries, where so-called first-class food is cooked, reveals untidiness at almost every turn. There are large machines for mixing bread, not over-clean, long tables of wood for kneading dough into loaves, men in much soiled clothing handling and tossing the loaves like so many playthings, an occasional fall on the much begrimed floor not consigning it to the refuse. These tables are scraped and rarely washed; men not busy sit and recline upon them with an abandon of ease and content, doubtless for lack of chairs. Thousands of pies are made in one day in large bakeries. Boston is said to furnish over thirty thousand pies a day, and in "Greater New York" one "pie foundry" turns out twenty thousand pies a day, and it is estimated that a million pies are daily consumed in that city. But as you pass along do not inspect too closely some of those who prepare material for these pies, nor be too fastidious as you glance at the mixtures in general use. The crust—composed of a little flour and much lard, more than three thousand pounds being daily used in one establishment for pies. Bayard Taylor said, "I believe that fat pork and pies have killed more people in the United States than dram drinking has." Perhaps he did not realize that the pork and pies created a demand for dram drinking, as well as other injurious articles.

To cake and sweet confection making there seems no end, and an endless procession to consume them. How dainty and delicious, how pleasing to the eye the unnumbered sweets consumed by the human family, and yet could they see them as they are being manipulated by men dripping with perspiration, their hands half way to their elbows in cake batter, mixing and filling the tins by hand, a little reflection might convince them that even that process was not very desirable, and that there ought to be some method devised whereby cake as well as bread could be better mixed than by hands.

That women should have the superintendence of bakeries has scarcely dawned upon the mind of the public; yet health and economy demand it, and there is no more useful field for educated women, skillful in the art of cookery, than this.

As bakeries now are, it would take a small army of men to thoroughly cleanse and put them in order, as they should be. Every one in a basement or under ground should be closed, unless there are means for plenty of sunlight and ventilation. Even then, bake houses would be better in separate buildings, where fresh air and sunlight would have free access at all times.

Women should be on the Board of Sanitary Inspectors of Bakeries, and their thorough work in that office would convince men that they ought also to superintend the cooking and purchasing departments.

An efficient woman is "death on dirt," as she is publicly proving as superintendent of street cleaning departments and similar public offices. "Microbes," dust and filth would not stand a "ghost of a chance" for development

wherever she held sway. She would have light and airy rooms and call to her aid healthy and tidy cooks, not saturated with tobacco, opium and liquor.

With these progressive sanitary arrangements, and still others that would naturally suggest themselves, and the entire exclusion of all animal fats and introduction of vegetable oils, it would be impossible to produce doughnuts and pastries saturated with stale and mal-odorous grease. The conservation of health would begin, and the economy attending such changes would commend itself to the proprietors of all bakeries. The purity and delicacy of food seasoned, shortened or cooked with vegetable oils is unsurpassed. (See chapter on Veg. Oils.) Pioneers in this change would reap a bountiful harvest and as educators in life preservation be entitled to "honorable mention" if not to "gold medals."

If they would go a step farther and produce aerated bread without hands, and unleavened bread of all kinds made of the entire flour of the grain, they would contribute more largely toward the better health of the people than it is possible for the great army of conservative doctors to do under the present conventional restrictions.

For the health of the race and the credit of inspectors, may the day speedily come when public bakeries shall be as clean and well conducted as our own well regulated kitchens and the model kitchens and cook rooms in first-class public institutions. Then we may expect pure food made from sound, clean material.

In every place of eight or ten thousand inhabitants should be a Hygienic Bakery, and in connection with it a well lighted and pleasant dining room, that would serve one substantial meal daily. This would soon become one

of the best educators in the right direction and need not be expensive to the consumer. An inviting waiting room furnished with papers and books would be of great assistance to a class of people who have no abiding place but the street or the saloon at mid-day.

In this connection it might be advisable to suggest that restaurants and eating rooms be not situated so far "inland" as to preclude the possibility of fresh air and sunlight that would dissipate the odors so disagreeably apparent in such places.

CHAPTER XVIII.

THE DRINK QUESTION.

Not liquor drinking, but the ordinary drinking habits of the people. There are those who tell us that "man is not naturally a drinking animal," but that he drinks everything that can in any manner contribute to the pleasures of appetite is too often painfully conspicuous. The question has he any right to do this, and does the system require inordinate drinking, not only at meals, but at frequent intervals during the day, as well as the injurious results of such habits, are rarely considered. The highly seasoned foods accompanying a mixed diet inflames the stomach and blood, creating a morbid thirst which water fails to relieve, and often increases the general discomfort. Hot drinks—tea, coffee and other stimulants, most of them adulterated—are then added to the menu and enriched with heat producers—cream and sugar. The door is now open to admit other guests, and mineral waters, temperance (?) beverages, beer and wine appear on the table—for health's sake, doubtless. Indulgence in these often creates a desire that leads to the saloon, tobacco and opium on the one hand, and on the other resulting in the introduction of scores of alcoholic and other stimulants conspicuous upon the dressing tables of hosts of nerve-shattered women.

Tea contains theine and tannin, the latter being a powerful astringent, and when tea is indulged in to excess the skin is actually "tanned," both inside and outside, and in some cases resembles leather. Theine is a poison alkaloid similar to the deadly drug, cocaine. Coffee contains caffein, a substance similar to theine, and also tannin. Tea and coffee are both often adulterated and they are no more necessary than wine or whisky. But a table is rarely complete without "the cup that cheers but not inebriates." Never was there a more misleading statement, and it is quite evident that these "cups" possess some power aside from that of merely quenching thirst, or whence arises the fascination surrounding the tea and coffee pot? Facts are well established that these drinks are to a certain degree intoxicating, and that there is a "tea disease" and "tea delirium" affecting those who indulge to excess. A host of diseases are also mentioned by the highest medical authorities as originating in tea drinking. Popular Science News, for October, 1895, says: "It is claimed that at least ten per cent of the patients at the chief dispensary of Boston suffer from *tea drunkenness*." Has any one numbered them in the higher walks of life? And what can be said of children whose delicate bodies are permeated with stimulants before their birth, and later their natural food daily seasoned with them? Statistics show that this indulgence by parents produces scores of diseases and increases the death rate among infants and children.

The man who takes his morning dram to brace himself for his daily toil is no less logical than the other man or woman who takes tea or coffee for a similar purpose. Thousands of women never do a day's work except on the

strength imparted by tea, the teapot in many homes standing on the stove all day, and the weary housewife takes a drink now and then to arouse her lagging energies, which is very much like applying the lash to a weary, over-worked animal. This excessive tea drinking may be economy, for very little solid food is eaten by these devotees of the teapot, and are they not tea-topers and mild inebriates? When people declare they cannot work without the stimulus these drinks impart, they are so "faint and gone" or "good for nothing," or that it is impossible to prepare a sermon, a lecture, or address an audience except under the influence of a strong cup of tea or coffee, are they not proceeding along the path of the inebriate, whose reasons are as valid as theirs? Indulgence by one class bears the stamp of respectability because popular, while in the other it is condemned as a terrible vice.

Rest, and not stimulation, is nature's call when weary. Excessive drinking of anything is an unforlunate habit, and those who live plainly, with food in suitable combinations, will be supplied with all, or nearly all, the liquids necessary to carry on the vital functions.

Coffee was introduced later than tea, and met with the most strenuous opposition. Loude, a distinguished French writer on health, says: "Coffee accelerates the functions only by shortening their duration. It doubles the energy of the organs only by doubling the debility which follows." Professor Hitchcock, in his "Dyspepsia Forestalled," says: "The bewitching influence of both tea and coffee lies in their narcotic properties, the same principle to which opium and tobacco owe their attraction." Daily experience fully corroborates all past and present statements

regarding the injurious effects of tea and coffee; yet in spite of facts, millions of pounds of these poisons are yearly consumed by an intelligent people.

Cocoa and chocolate are also injurious and contain poison similar to theine found in tea and coffee. The chocolate tree is a native of Mexico, and is not the cocoa palm from which we obtain the cocoanuts. Chocolate is prepared from the seeds of the tree, which are very oily, and the refuse after the oil is extracted is made into "cocoa." These articles are often of inferior quality and chocolate is adulterated with animal fats, causing it to become rancid and too oily for digestion. These drinks may not prove as injurious to some people as tea and coffee. Nervous people should not use tea, "bilious" people should abstain from coffee, cocoa and chocolate, as excitability, dullness and stupidity follow the use of these drinks in different temperaments. One cannot be too cautious in their selection of these goods, as there are very few unadulterated.

These popular beverages may soon be outrivaled by the kola nut, which is being discussed with reference to its nutritious and stimulating qualities as a beverage. It is said to have been "largely in use for centuries among the natives of Africa, who consider it so valuable that those who have no trees on their own territory will pay by barter for the nuts, either dry or in powder, even their weight in gold dust." It is already used as a medicine in nervous diseases, but when we are no longer the victims of injurious dietetic habits, we shall be free from the idea that nature requires artificial stimulants, either in the form of food, drink or medicine.

Drinking at meals is an injurious habit, but if consid-

ered necessary, avoid taking a drink to wash down each mouthful of food, unless you desire to pose as a popular dyspeptic. Instead of conventional drinks, use hot water with fruit juice, caramel cereal or the nut meal prepared with hot water, or any simple domestic preparation. Drinks may be taken at the beginning or close of a meal, but not hot enough to scald the stomach, nor cold enough to chill it, and as a rule do not drink, especially anything cold, for two or three hours after eating.

CHAPTER XIX.

ALCOHOLICS IN FOOD.

There seems to be an increasing tendency to incorporate alcoholic flavors, wines, brandies, and other non-temperance liquids in our food and possibly we begin to make inebriates of those who partake of them. In religious, secular, daily and weekly papers and monthly magazines the flag of intemperance is displayed and announces wine, beer, brandy, rum, cider and gin from a wine glass full to a quart being required to perfect a given article of food. Brandied pears, peaches and other luscious fruits are rendered intoxicating ; even the watermelon is not considered complete by some prolific writers on the food question without being deluged with a glass of wine before serving. Under the head of "safe, summer delicacies," we find a quart of the best brandy or good Jamaica rum to be added to a quart of fruit juice. A dainty supper dish is called "brandy cake." The cake is baked and then all the brandy poured over it that it will absorb ! Wine and brandy dressings and wine sauces are common. Thousands of this class of recipes are yearly heralded to the domestic world. These teachings are a great stumbling block to the temperance cause and exist and flourish because we have not thought enough about it.

Is not the temperance sentiment sufficiently influential to induce the editors of household departments in papers and magazines to refuse to publish recipes containing liquor in any form? Are not the heads of cooking schools, that wield such a powerful influence in the homes of to-day, sufficiently united on the temperance question to refuse to use, or teach the use of wine, brandy, etc., in our food? If not, then upon what sort of foundation does the temperance question rest! Notwithstanding the earnest work of the W. C. T. U, in this direction and the good that has been accomplished, a new plank should be added to their platform, and a new page written so powerful in its appeal that intoxicants in food would become unpopular. It is an easy matter for a progressive individual to strike out in a new line of thought, but very difficult to interest the masses in comparatively new, untried methods, especially in anything pertaining to the pleasures of the table. But to humanitarians and temperance leaders and workers everywhere this book appeals, and asks why it is that notwithstanding the influence of this immense combination, crime is more rampant than ever; criminals, inebriates and saloons becoming more numerous every year. Breweries and distilleries old and new rise in all their grandeur, proclaiming to the world that they accumulate their millions, alike from the artificial wants developed in the homes of wealth and luxury, and the ills and wretchedness arising from the hovel and the gutter. Evidently causes exist that legislators, politicians and the temperance army have failed to discover. Human nature rebels against coercion; physical "wants" demand gratification and it is useless to attempt to compel inebriates to yield to our wishes. Let us then turn our attention

to the fact that they are starving, and if nourishing food is not supplied they will drink, as they know of no other way to satisfy the internal craving for something which in their weakness they fail to understand. For this reason the saloon exists and will continue to exist until we cease providing victims to patronize it. It is time for the temperance world to pause and thoroughly examine this side of the question.

Unholy as is the curse of king alcohol, the curse of slaughtered creatures for food is equally disastrous to the race, because it kindles and feeds the flame that demands the distillery, the saloon and the drink. It creates men and women who as instinctively turn their footsteps toward the saloon as do others toward the grocery and the drug store for tea, coffee, opium, patent alcoholic nostrums and scores of other stimulants. They have the same right to indulge in their favorite potations, as have we to gratify our desires in a less harmful manner, so far as the immediate effects are observed. It is for us, as teachers of a higher life, if we have become weary of the fight, disheartened because of slow returns, to turn about and face the fact that at our tables the foundation is laid that determines more than any one thing else the character and stamina of humanity. No matter how well your son or daughter, or mine, are "brought up at home," so long as we place before them dead flesh, diseased and impure at best, and stimulating condiments and drinks they will crave other unnatural foods and drinks and do their share in a score of ways toward making generations of inebriates. This question has a deep and far reaching significance and when once convinced of this we would never encourage, or lend our

presence at a "barbecue," delightedly watching the process of roasting an ox that a few hours before had just the same right to life as ourselves. The rights of animals forbids their sacrifice for human food.

Who will inaugurate the era of bloodless feasts and banquets innocent of cruelty? Who should do this, unless it be the vast body of temperance and humane workers that are making colossal efforts to save the race? Who will establish a precedent and provide a public dinner, or entertainment of any kind, a social or church supper, that shall be of an acceptable character, unattended by a procession of the dead? Who will set the example of no stimulating tea and coffee and provide instead, rich juices of fruits and nuts that will satisfy any reasonable mind and gratify the most fastidious epicure?

We often read of immense conventions of the world's noblest workers in every line of beneficent labor, and the press comments detailing the number of pounds of beef, ham, fowl, cheese, tea, coffee and butter, the gallons of milk and cream, the loaves of white bread and cake, with pies and puddings required to feed such assemblies. And while we contemplate the warfare being carried on internally in this incongruous mass, to separate the various elements required for the needs of the body, we no longer wonder why bickerings, warfare of words and unkind feelings are engendered upon the public platform. Such feastings are not the best for producing the highest spiritual inspiration for speakers or listeners.

Do you say; "What has this to do with the temperance question? We must follow the customs of the world!" Customs are of less value than human beings, and it has this to do with temperance, that when we thus feed our

own bodies we are encouraging intemperance by doing our part towards making the soil from which the moderate drinker — over 15,000,000 of them in the United States— and the drunkard — over 1,000,000 of them, statistics tell us — are grown.

We hear of the new woman, but she has not yet appeared and never will until the present woman creates a new order of things. Unless a decided change is made, we shall continue to produce the same old style of inebriate and criminal, the same quality of half made infants that never “come to stay,” and a great multitude of unbalanced mental and physical humanity from similar material more elaborately prepared than ever before. From the food of the world is created its people, and it almost seems as if the table of modern civilization had reached the acme of absurdity and unphysiological inconsistency.

XX.

FARMYARD SLAUGHTER AND KITCHEN
DISSECTIONS.

There are few who have considered this branch of the food supply question. From its association with every day life, it has become second nature to kill a chicken, fish, lamb or pig and dissect it, often regardless of the presence of women and children. Many a woman is called upon to kill and dress the domestic fowls she has fed, and cared for, and that the children have regarded as almost human. A little later they assist in their capture and confinement for sentence and execution, and still later are taught to slay them. The mother or her assistant dissects them for cooking, the completion of the process culminating at the table, where each one, from the parents to the wee toddler with his "wish bone" have dissected and left but the skeleton of the once living creature humanely treated and carefully fattened for slaughter.

Young boys are encouraged to array themselves in the panoply of a hunting and fishing outfit; with pockets laden with fishhooks, powder and shot they march away like soldiers to the battlefield, for a few hours' or a day's sport in stream or forest. The fleet-footed and swift-winged creatures flee upon the approach of these, to them, monsters. But it was not so from the beginning of crea-

tion. Beasts, birds and every living creature were friendly with man. The poet Ovid, after describing the cruelties inflicted upon animals in order to appropriate their flesh as food, says:

“Not so the golden age who fed on fruit,
Nor durst with bloody meals their mouths pollute.
Then birds in airy space might safely move,
And timorous hares on heaths securely rove;
Nor needed fish the guileful hooks to fear,
For all was peaceful, and that peace sincere.”

Instinctive fear has displaced love in the animal race, and to flee on the approach of man is their method of protection, to remain, even to guard their young often proving the death or capture of their family.

There is a surplus of cruelty born into this world and developed after it gets here by and through the unrecognized influences in the home life.

And this is one of the immense problems, connected with dissection and vivisection of animals in schools and educational institutions, that the humane world will ere long be called upon to discuss. While mentally investigating the subject, the “Report of the American Humane Association on Vivisection and Dissection in Schools” was received. The testimony of eminent educators is not lacking in showing the barbarity and the baleful influence of dissections in schools, to say nothing of the diabolical practice of vivisection. To give emphasis to my thoughts and for the sake of application a few opinions selected from hundreds are briefly quoted.

Prof. Geo. Wilton Field of Brown University, Providence, R. I., says:

“It is not advisable to kill, dissect or vivisect any of the red blooded animals in the presence of young children.”

Yet this kind of dissection is carried on in our kitchens and the children are witnesses. They are also familiar with the crimson current that follows the carving of rare roast beef at the table.

John T. Prince, Board of Education, West Newton, Mass.:

"As to killing animals before children, I quite agree with your association."

Rev. Dr. C. W. Leffingwell, editor of The Living Church, Chicago, Ill.:

"I think it most undesirable to familiarize the minds of the young with the sight of suffering and dying. Those whom it does not shock it will harden."

B. O. Flower, editor of The Arena, Boston, Mass.:

"It is difficult to conceive of anything more injurious to the child than allowing it to witness or engage in experiments involving the infliction of pain or death on helpless animals. It is bound to blunt the finer sensibilities and call out the savage in the child."

"Pain and death" are inflicted upon helpless creatures every day in thousands of homes, and the children see it, hear it and feed upon the cooked and garnished flesh. Has this any tendency to "call out the savage in the child"? *Had it anything to do with creating the savage instinct previous to the birth of the child?*

Rev. Dr. H. W. Thomas, Chicago, Ill., says:

"In all young minds and hearts should be cultivated a sacred reverence for life and the kindest feelings for every creature capable of suffering pain. We should certainly hope that the humane sentiment of our age will create a public feeling so strong as to discourage and prevent every form of cruelty and the shedding of blood in our public schools."

Why continue to do this work in our homes and set

before the children the result of the want of sacred reverence for the life of the animal, where appetite is concerned?

Rev. Dr. Morgan Dix, rector of Trinity church, N. Y.:

"Children need to be taught lessons of kindness and consideration for the creatures which we domesticate and of which they make pets and companions."

Of what avail the teachings, if we slay and encourage the children in eating the pets they have loved?

Rev. E. E. Gordon, Sioux City, Iowa, says:

"Emphasis should be placed upon the sacredness of all life."

Rev. Geo. K. Hoover, D. D., Chicago, Ill.:

"The infliction of pain or death upon a helpless creature will most certainly pervert the moral nature of children. Time was when people could lead a victim to the stake and witness his agony with comparative complacency, but a great many customs that once were not only tolerated, but readily accepted, are now utterly banished from society."

This being true, then we may look forward to the day when the abattoir with its nameless horrors shall be banished, farmyard slaughter cease and kindness be a dominant, inborn characteristic of the race.

Frederick Harrison, Esq., London, England, says:

"I am surprised and shocked to learn that there can exist schools of any kind where young boys and girls are allowed to witness dissection of living animals under any circumstances whatsoever. * * * I care not whether anæsthetics are adequate or whether the dissection is of dead animals; *both are revolting and deeply demoralizing to children.* And the enormity is increased where the animals dissected are the companions of our daily life."

Auguste Comte, who was a philosopher as well as a professor of science, taught that "the domestic brutes we train to our service are in a sense admitted to our

humanity, and he would not have the highest moral teachers of the young defile themselves with the dissection, even of the dead, as this was incompatible with the profoundest reverence for human life."

Dr. George Ebers, Munich, Bavaria, says:

"The child knows its power over dumb creatures only too well. To strengthen this knowledge would be useless and injurious, for the child should be taught to respect all living objects, and to remember that they were created to enjoy life."

H. D. Lloyd, editor Chicago Tribune:

"Experiments involving infliction of pain or death tend to blunt and therefore to brutalize children in their human relations. I do not live up to the doctrine, but I believe that our physical as well as sympathetic evolution is moving to the point at which we will be as incapable of killing animals for food for the body as for food for the mind."

Rev. E. B. Graham, editor Midland, Chicago, Ill.:

"Children should not be allowed to see game shot by cruel sportsmen, or domestic fowls killed even for food, and much less should they become familiar with cruelty in the interests of education."

Nowhere could there have been found a more brilliant array of talent to emphasize the position taken by the most radical humanitarians and non-flesh eaters. Verily they have testified with deeper significance than they knew, not only for the present generations of youth, but, practically carried out, for all future generations.

It is a significant fact that half the above quotations are from residents of Chicago, the greatest animal slaughtering city on this continent. Let us ever remember that at the World's Fair in 1893, within the walls of the "White City," we were held up to ridicule and shame by the noble and grand expounders of "the law and the gospel" from

the Orient, because of our inhumanities toward the animal world.

Albert Leffingwell, M. D., in his profound address before the World's Humane Congress at Chicago, said :

"I do not disguise from myself the hope that the time may come when the substitutes for flesh as food shall be so universally procurable, so cheap and abundant that the human race will find a far higher ideal than is generally held to-day, and refuse to sacrifice any life for the gratification of appetite alone."

Thus it will be seen that the trend of our best thought and labor is directed toward the elevation of the human race and the humane treatment of the animal world.

If, then, school room dissections are so pernicious, such educators in cruelty and demoralizers of youth, so also must be farmyard slaughter and domestic dissections constantly practiced before our children, either directly or indirectly. And yet we have been so blinded by a carnivorous appetite, the discovery is but just dawning upon our minds that possibly hunting, fishing, trapping game and killing every available creature for food may have had an influence in producing the inharmonious conditions about us. To examine this matter a little more closely, think of the mothers, present and prospective, daily handling meats of some kind, dissecting, pickling, salting and cooking not only the flesh, but the internal organs, and serving them as food. *And these are the mothers of the race, engaged in and constantly familiar with dissections.*

Consider a moment this side of the question, and then confront yourself with the influence, the relationship these acts and surroundings may have upon the children being created! The connection between the building material and the product is perfectly harmonious. And when we

further take note of the men engaged in the butcher's trade, we may discover how the surplus of cruelty is being woven into the web of life.

Upon this rock, "to kill or not to kill for food," stand thousands to-day. The torturing vivisector, whom we have unconsciously created and demanded because of disobedience to the laws of life, turns on us when we cry out against him, loudly proclaims our inconsistency and plies his ghastly work more vigorously than ever, *even now demanding human victims to satisfy his desire to benefit the race*. We earnestly hope that the scientific application of recent developments will supercede and end this most unnatural occupation.

Correctly fed and properly nourished on THE FAT OF THE LAND, cruelty would die a natural death. But how shall we inaugurate the change? The instinct of children is often more profound than the wisdom of maturity; appeal to those in your homes; convene in every city and town the societies and bands of mercy that are united in one grand cause; to this vast army add every homeless waif upon the continent, and ask them if it is right and just to treat animals so kindly and later reward them for their gentleness and pleasant comradeship by killing and eating them? The inconsistencies of our practical conduct toward living creatures are so clear children cannot fail to perceive them. Place before the mental vision of these youth a feast of the dead, in contrast with a feast of nuts and fruits, and the majority would declare in favor of the latter. Then how easy to prepare the way for the millions of children who would be fed upon the productions of the earth if this innovation were begun in our homes and perfected by slow degrees. How easy to teach

them that it is not right to kill anything, when the land is overflowing with a superior order of food. To those who live in cities but little is known of the life and habits of the "friends" they eat, but in the country terrified echoes from the farmyard proclaim the revolting scenes enacted there. Children hide themselves and shut out the terrible sounds, and evade with rapid rush too close proximity to the suspended forms. Yet they are permitted to witness the dissection of these dead. How wide a berth we all grant to the scenes, sounds and odors of the abattoir. How we shrink from the occupation of the butcher, and "would rather be excused from viewing the process." Yet the product of the process lies daily on our tables, and the demand for it makes both the abattoir and the butcher's trade necessary.

That the continual "slaughter of the innocents" is not conducive to the highest and best development of which the human race is capable was made painfully apparent at a recent "barbecue" in a neighboring city. The following is extracted from the report of this affair in one of the leading daily papers:

"Over the pits for roasting were hung 40 rounds of beef, averaging 100 pounds, and 50 sheep impaled on barbecue irons. Merrily the roast went on, and before 1 o'clock the 50 servers, with their cutlass-like carving knives began to attack the huge hunks of meat. When the roasts were taken from the fire they were coal black, but a skillful flourish or two with the sabre, and the juicy meat was laid bare. After a deep end to end gash through the roast, the carvers used both hands to tear the meat from the bones. Then slabs, slices and hunks, as the case might be, were struck off, slapped between huge slices of bread and passed to the hungry crowd. In an hour and a half the people had made way with 4,000 pounds of

meat and 1,000 gallons of coffee. The people were ravenous. The condition of the park was such as imagination pictures the heath of a South Sea island when cannibals have been enjoying a fresh batch of missionaries. Far and wide, for acres, were strewn lumps of meat varying in size from a finger to a fist, wooden plates and slices of bread and exhausted melons and lemon rinds. Up to half past four there had been consumed five tons of beef, 75 lambs, 2,000 gallons of coffee — made from 500 pounds of coffee — two barrels of sugar and 1,590 double loaves of bread. The basting for the roasts, which was applied by means of large sponges at the end of poles, was composed of 200 pounds of butter, 40 gallons of vinegar, 50 pounds of pepper and two barrels of salt."

No wonder the "heathen" call us "inconsistent" and "a nation of Christian cannibals," when such entertainments are possible in the closing years of the nineteenth century enlightened, Christian civilization! *Humane civilization* seems to be the crying need of the hour.

On the editorial page of the paper containing the above report appeared the following item:

"The birds were a splendid lot. Over 1,600 were killed.' These are the humane sentiments expressed in one of the press dispatches about the trap-shooting tournament at Chicago. It may be sportsman-like to force a pigeon into a box and then to murder him with a shotgun when he tries to fly away, but we fail to see it."

Does the flesh-eater fail to perceive that it is just as cruel to drive innocent oxen, sheep and pigs where they become defenceless, having no means of even trying to escape, while thousands of men are educated to kill them by the millions for food, when it is not *necessary*, but only *customary* to use such food?

The "barbecue," the slaughter, the kitchen dissections are the very best educators to produce the quality of youth

and men demanded for pigeon shooting, fox chasing and all similar "sports," and a thousand other things for which such barbarities are directly or indirectly responsible.

Another branch of this subject now comes into view — the unrest developed among the farmers' sons and daughters and their anxiety in devising ways and means to induce them to remain at home. "He is only a farmer" formerly meant that he occupied an inferior position. Happily that idea is out of date, and if the farmer does not stand at the head of the list — an agriculturist — then it is his own fault.

This position is rightfully his, and the world could not exist without him and the products of his labor. That there is a great amount of "drudgery" connected with farm life as it is, no one will deny. That the work never seems done; that hours are earlier and later in the farmhouse than elsewhere is only too true. The laborious, exacting labor inseparably connected with farm, kitchen and dairy work taxes unduly many a youth, and closes the door upon the gratification of aspiring ambition in many directions. But when the farmer turns his attention to the cultivation of the earth and causes it to *produce the fat of the land, and grows our meat and milk upon trees*, this branch of agriculture will become so attractive our children will have no desire to leave the farm. Their occupation will be so ennobling, so productive of beauty and grace in waving grains, fruit laden boughs and stately forests of meat bearing trees that soul longings will be fed and beauty loving hearts no longer starved and shocked into unconscious rebellion. Flowers, the ever ready inspiration to a purer life, denied in many a home because of the ravages of domestic animals, will decorate the

grounds, and every one will have time to enjoy life, and opportunity for mental growth and culture.

A purer table means a purer, whiter life for us all. Make flesh eating unpopular and the idea that we must "kill something" that we may live would soon die out. This wide spreading root dead, its injurious accessories, including liquor, opium, tobacco and all their kindred, would slowly disappear. Gilded palaces and dram shops would close for lack of victims. Acute illness and chronic ailments would no more require the services of physicians, and as surgical diseases and accidents would diminish, the scientific surgeon would find his occupation more than half gone.

This is no fanciful sketch, but an advance chapter upon a progressive subject that had its beginning in vegetarian homes.

To kill or not to kill for food, is a question for consideration and solution by the great mass of intelligent people who indulge in flesh that feeds and stimulates, arouses and quickens every insane desire and base passion known to mankind.

CHAPTER XXI.

WHERE THE MONEY GOES.

To compute the actual cost of sustaining the present methods of improving the condition of the race would be useless while the causes that create the necessity are overlooked. Hence a few statistics gathered at random will serve as a reminder that we have become the most extravagant and wasteful of nations. The unnecessary articles we consume, far exceed the expense of legitimate food. Our trade and traffic with other nations has brought to our shores many of these extraneous goods. The problems of supply and waste, of needs and wants, are full of earnest work, and when treated from a physiological stand-point, nineteenth century poverty, crime and intemperance will not stand a shadow of a chance for existence at the close of the twentieth century.

Meat. On the animal side, behind the scenes of slaughter, we find the following :

“Eight or nine million hogs, between three and four million head of cattle, and fully two million sheep, find their way into the stock-markets of Chicago in the course of a year. * * * Seriously, if the stock markets of Chicago were by any possibility to bob out of existence to-morrow the effect on the feeding arrangements of the world would be no trifle.”

Very true, but the advantages gained would be immense. This is but a sample of the great and costly sacrifice of living creatures in various parts of the civilized world. A pound of meat costs *six times* as much as a pound of the cereals, while a pound of the latter contains *three times* as much nutriment as a pound of meat. In other words the cost of the nutriment in meat is eighteen times as much as that in the cereals. In view of this fact it seems a great waste to supply the human family with a second hand article, for the animal is but a machine for converting grain into flesh.

Milk. "London requires 600,000 cows to supply it with the products of the dairy, 84,000 being needed for milk alone. Nearly 12,000 of these "milk machines" spend their lives in sheds and hardly ever see daylight so to speak."

A paper read by George M. Whitaker before the State Board of Agriculture on the milk supply of the cities of Massachusetts says :

"The milk business in a state like Massachusetts is particularly interesting, because 75 per cent of its population live in cities and towns of more than 7000 population. These people are estimated to pay for milk \$12,500,000 per year. In Boston alone 240,000 quarts of milk are daily consumed. It is estimated that \$85,000 per year is paid to Maine farmers for cream sent to Massachusetts."

This is the supply of one state only. This inordinate consumption of the unnaturally produced lacteal fluid, is largely responsible for infant mortality and human tuberculosis, as well as many other diseases. This induced condition demands physicians and several other professional industries, that flourish upon the diseases of the people.

Living on our Diseases. The English *Herald of Health* contains the following item :

“ Looked at in a severe light it is true that the medical practitioner is supported by the disease of the community and not by its health, and therefore it is to his interest to prolong illness. None but the Chinese fully realize our position in this respect. When Kien Long, the emperor of that celestial country, learned from Sir G. Staunton our method of feeing the physician for attendance during illness, he inquired ‘is any man well in England that can afford to be ill? I have four physicians to whom the care of my health is committed and a certain weekly salary is allowed them, but the moment I am ill the salary stops till I am well again. I need not inform you that my illnesses are very short.’ ”

Doctors' Incomes. In an article on this point in the *Forum* Dr. George F. Shrady states that “the average annual income of a physician in full practice in a large city may be stated as \$2000, and in the smaller towns and in strictly rural districts \$1,200. Two or three physicians in New York make over \$100,000 each year, five or six range from \$50,000 to \$60,000, 50 from \$25,000 to \$30,000, 150 from \$10,000 to \$12,000, about 300 from \$5000 to \$6000, 1500 from \$2000 to \$3000, and the remainder from \$800 to \$1000.”

The Chinese doctor gets no pay while his patient is sick and hence bends all his energies toward curing him as speedily as possible. Should this become the universal custom, there would be fewer sick people. Hospitals and sanitariums would diminish, and medical colleges would find it necessary to change their curriculum.

Tea and Coffee. In 1890 over 400,000,000 pounds of coffee were consumed in the United States, and over 80,000,000 pounds of tea, amounting to nearly two hundred millions of dollars and when to that we add the bills

for chocolate and cocoa a few millions more may be safely mentioned. From a physiological standpoint these drinks are entirely unnatural and unnecessary. Verily we are an extravagant nation of drinkers, and when we add to the expense of these articles the cost of cream and sugar to render them palatable, the bill represents millions more. In this connection we must bear in mind that "the poor whom we always have with us" through the influence of our example indulge in these articles to the extent of their means, a cup of tea and slice of white bread, being considered by many poor women the best food they can have, when in reality it is the very poorest.

The Liquor Bill. From the internal revenue reports we find that our people were taxed last year for 87,000,000 gallons of whiskeys and other distilled spirits, 1,500,000 gallons of fruit brandy and more than 33,000,000 barrels of fermented liquors. The taxes amounting to \$116,974,040. The entire cost of these luxuries was over \$200,000,000.

No arguments are needed to prove that this outlay is unnecessary, and that the world would be better off if the liquor bill were utilized for a better purpose instead of assisting in the manufacture of criminals.

Tobacco. Billions of cigars and cigarettes are consumed in a year; 11,000,000 pounds of snuff and 235,000,000 pounds of tobacco are also used in a year by our people and represent millions of dollars; to this we may add millions more for opium, drugs and spices.

From these statistics it is proven that the nation eats, drinks, smokes and spits away sufficient in one year, to more than defray the expense of running the national government, and the worst feature about it is, that the

human race would be greatly benefitted in every way if none of these things were appropriated by them as food drink or stimulus.

Heavy Taxation becomes a necessity, and the government sets the taxes adrift to meet the expenses attending the detection of adulteration in food supplies, and battling with sick animals, injurious pests of various kinds, crime war and other ills caused by unnatural conditions.

Would that we might let fall the curtain here, but before us loom up the immense wealth represented all over the world in magnificent buildings that furnish homes for the invalid and demented public; the drunkard, and the criminal. The cost of supporting the former runs into millions and of the latter it is stated that

“In New York alone there is a ‘well organized, well equipped, and well officered’ army of 80,000 criminals. The prisons of the United States hold over 300,000 convicts. To support them costs more than the country’s annual yield of gold and silver.”

Can we longer afford to cultivate this profitless production.

The Cost of War. It has been stated that “about every century from eighteen to twenty millions of men are mutually butchered in Europe and a similar number in Asia, while among non-civilized nations the human sacrifice is about 5,000,000 a century. Aside from this holocaust of human lives, the expense of sustaining warfare, supporting armies and navies, made ready for war, reach an astounding sum. All these necessities, largely made such because of indulgence in the acknowledged luxuries of life,—which we have come to regard as actually essential to our comfortable existence, are responsible for the problem of where the money goes.

Economy. It is not in any sense economy to maintain the causes that constantly supply fuel that induces and increases the necessity for continual warfare upon unnatural conditions. To grow, import and manufacture all these articles that deteriorate the race more or less, to support institutions that never should obtain standing room in a civilized nation, should cause us to blush with shame that they are necessary for the moral, physical and national safety of an enlightened people. Instead of this however, we point with pride to the huge and expensive mausoleums that often occupy and overlook the most magnificent in nature's varied landscape and in which are buried millions of living victims.

A nation that can afford indulgence in such luxuries should never mention "hard times," until they consider "where the money goes." Hard times would be impossible to a temperate nation. We shall never reach that desirable condition until we consider cause and effect in a broader light than has yet been generally recognized by the most wise and learned philanthropists.

CHAPTER XXII.

IN A NUTSHELL.

This book is designed to meet not only the needs of radical dietetic reformers and vegetarians, but also to assist those who are thinking upon this question with special reference to the slaughter of animals for food. The author has endeavored to make plain the practical way; trusting the reasons given may prove of sufficient value to create thought and discussion, if not immediate decision by those who stand waiting at the door, undecided whether "to kill or not to kill" for food, is forbidden in the humane code of acts with regard to the rights of defenseless animals.

As elsewhere stated, butter, sugar, milk, eggs and salt are admissible in a vegetarian dietary, and some spices are used by many. Although the recipes in this book exclude these articles, or advise "the less the better," any practical cook can take them as they are and add just what she may require to perfect her own methods of seasoning, although it is hoped that the plainer methods may prevail. If those who read adopt this plan, the book will fulfill a double mission and reach all classes of people. Those desiring to gradually adopt the better way can begin by using equal parts of water and milk for all mixing purposes, and use less salt, spices and sugar.

It is possible for a person to be a strict vegetarian and often cook meat for other people. It is also possible for a discreet housewife to experiment in new methods and gradually introduce vegetable oils in cooking, and thus accustom the family to changes that might be refused if previously discussed. Very few readers will be already supplied with vegetable oils. Read the chapter on this subject (page 57), then ask your grocer to order a case, and also to send with it samples and literature. These goods are put up in cans and pails and retail at prices within the reach of everybody. Cooking schools, hotels and bakeries in some sections are already using them, at a great saving of expense. Be not cajoled into the belief that lard, cottolene and cottosuet are just as good, possibly better than Diamond Butter Oil and Cocoanut Butter, for such is not the fact. The only redeeming feature about the animal fats is the cotton seed oil with which they are adulterated, thus proving that vegetable oil is cheaper than pork or beef fat. Do not think this method would be eventually against the interests of agriculturists. Would it not be more cleanly and attractive, easier and better in every way to grow fruits, vegetables, grain and nuts? These are all in demand and are much more tempting when taken at first hand, than after being converted into flesh of doubtful quality.

It is much easier to be a vegetarian in 1896 than it was in 1856. Then fruit culture was in its infancy, and nut culture almost unknown. To live without animal food was considered a method of suicide by starvation. The way has been expanding year by year, until now only a slight elevation of the eyebrows, and a hasty glance, suffices to express surprise when one refuses meat. For-

merly the astonished query: "You don't eat meat! What do you eat"? "Anything but meat," would be the reply, —then would follow a brisk discussion on dietetics. To-day no one is considered "queer," even at a hotel or restaurant, if he takes vegetables without meat. "A very small piece of meat; I eat but little now-a-days," is often heard at the modern table. "Only a little beef now and then, with an occasional dinner of fish, especially in hot weather," is a common reply to the question, "Do you eat meat"? Thousands have progressed thus far, and the wheels turned by "cranks" ever since the days of Moses, the sanitary inspector, down to Christ, the practical teacher who utilized the swine to "drown devils," have continued to revolve through the centuries, slowly wearing threadbare the old and weaving in the new. To cook without animal products was formerly extremely difficult, and but few attempted it. The desirability for discarding them was not then so apparent, as parlor stables, grooms and servants for animals of illustrious pedigree were then unknown, and the present artificial and disease producing life of the animal race had not begun. The author, however, by special request, tried the experiment twenty-five years ago, in a Sanitarium, for six months. The larder was supplied with nothing but grains, flour, fruits, vegetables and nuts — no spices, salt or "rising" material. The results of this experiment were satisfactory in every way. The provisions being of the first quality, and very carefully steamed and baked, the appetite for salt, seasonings, milk and butter was entirely absent after a few days. Had fruits and nuts been more plentiful, and vegetable oils in market, permanent changes in diet would have been the result. Now

there is no excuse but the lack of effort to procure perfect substitutes for animal products as explained in this book.

But what about our guests, and visits to friends, if this new way of living be adopted? Guests are glad to find something new, and will enquire how you made those cocoanut gems, fruit biscuit and hard rolls, and what gives the vegetables such a fine flavor? If you use but little or no seasonings, furnish them for your guests.

When you are invited out, and know that fresh, white yeast bread is the fashion on your friend's table, take your own bread, share it with your friends, and thus sow the seed that shall help to redeem the world. Fruits and nuts are easily procured, and so the objections and problems involving changes may all be practically adjusted.

Some readers may deem the prominence given to the humanitarian side of this question out of place in this book. But the author believes that through an awakened humanity, that shall practically illustrate, and educate the youth of the nation into a thoroughly humane civilization, is the only way out of present undesirable conditions. The two ways are made plain. The one sustains and perpetuates existing inharmonies. The other turns a new leaf and reveals a new code of ethics, that will bring peace to the body, that peace may prevail upon earth.

And may this book be to those who read, the way, the truth that leads to a higher life.

DIRECTORY.

To make this book helpful to all readers and assist them in obtaining pure food products, a few addresses are here given, and circulars will be sent on application to the manufacturers.

•COCOANUT BUTTER. Pure Food Product Co., 544 North Water street, Chicago, Ill.; General Agents McLellan and Brigham Co., 50 and 51 Chatham street, Boston, Mass.

•DIAMOND BUTTER OIL. The Merchants and Planters Oil Co., Houston, Texas; General Agent J. H. Richardson, Quincy, Ill.

EDUCATOR FOOD STORE. Dr. Wm. Johnson, Nos. 82 and 83 Boylston street, Boston, Mass.

•HEALTH FOODS. Dr. J. H. Kellogg, Battle Creek, Mich.

NUT PREPARATIONS. Sanitas Food Co., Battle Creek, Mich.

•ALL KINDS OF HEALTH FOODS AND NUT PREPARATIONS. Mrs. S. M. Candee, 21 Allen Place, Hartford, Conn. Send stamp for circulars.

VEGETABLE MILK, ETC. Hygienic Supply Co., 203-205 Park avenue, Baltimore, Md.

WELCH GRAPE JUICE CO., Vineland, N. J.

•HEALTH FOOD CO., 199 Tremont street, Boston, Mass.

•FINE FLOUR OF THE ENTIRE WHEAT (Original). Franklin Mills, Lockport, N. Y.

•READSHAW'S FOREST MILLS GRAHAM FLOUR (Original) AND CEREALS. Dansville, N. Y.

•GRAHAM FLOUR AND CEREALS. F. Schumaker, Akron, Ohio.

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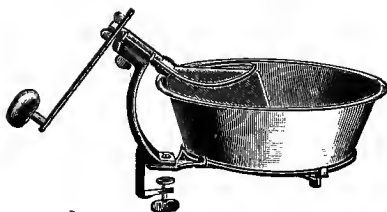
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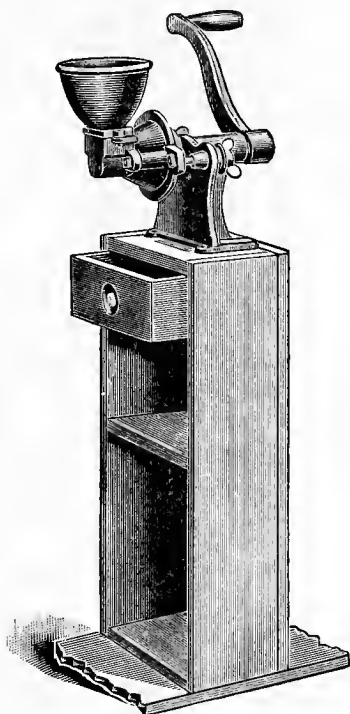
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